

EX05-004patentin.txt  
SEQUENCE LISTING

<110> EXELIXIS, INC.

<120> ITPKS AS SMODIFIERS OF THE IGFR PATHWAY AND METHODS OF USE

<130> EX05-004C-PC

<150> US60/539,837

<151> 2004-01-28

<160> 10

<170> PatentIn version 3.2

<210> 1

<211> 1782

<212> DNA

<213> Homo sapiens

<400> 1

gaattccgga aatgaccctg cccggggggcc caacgggcat ggcgcggccg gggggcgcgga	60
ggccctgcag cccggggctg gagcggggccc cgcgccggag tgtcggggag ctgcgcctgc	120
tcttcgaggc gcgctgtgcg gcggtcgctg cggccgccgc cgcgggggag ccccgggccc	180
gcggggccaa gcggcgtggg ggacaggtcc ccaacgggct tccgcgggct ccccgggccc	240
cgggtgatccc tcagctgacc gtgacagccg aggagcccga cgtgcccccg accagccctg	300
ggccgccgga gcgggagagg gactgcctcc cggcagcggg ctcttcgcac ctgcagcagc	360
cgcgccgcct ttccacctcg tcggtctcct cacttggtc ctcgtcgctg ctcgaggact	420
cggaggacga cctgctgagc gacagtgaga gccggagccg cggcaacgtg cagctggaag	480
cgggcgagga cgtgggtcag aaaaaccact ggcagaagat ccggaccatg gtcaatctgc	540
cggtcataag ccctttcaag aagcgctacg cctgggtgca gctggcaggg cacactggga	600
gttttaaggc ggcgggcacc agcgggctga tcctgaagcg ctgctcggag ccggagcgct	660
actgcctggc gcggctgatg gctgacgcgc tgcgcggctg cgtgcctgcc ttccacggcg	720
tgggtggagcg cgacggcgaa agctacctgc agctgcagga cctgctcgat ggcttcgacg	780
gaccttgtgt gctcgactgc aaaatgggcg tcaggactta cctagaggag gagctgacca	840
aggcccgtga gcggcccaag ctgcggaagg acatgtacaa gaaaatgctg gcggtggatc	900
ctgaagctcc cacggaggag gagcacgcgc agcgcgccgt caccaagccg cgctacatgc	960
agtggcggga aggcattcagc tccagcacca ccctcggtt ccgcatcgag ggcattcaaga	1020
aagcggacgg ctcttcgagc accgacttca agactacgcg aagccgagag caggtgcttc	1080
gcgtctttga agagtttgtg caaggagatg aggaagtgct gaggcggtat ctgaaccgcc	1140
tgcagcagat ccgggacacc ctggaggtat ccgagttctt caggaggcac gaggtgatcg	1200
gcagctcgct cctctttgtg cagcatcact gccatcgcgc cggcgtgtgg ctcatcgact	1260
tcggcaagac cagccccctc cccgatggcc agatcctgga ccaccggcg ccctgggagg	1320
agggcaaccg cgaggacggc tatttgctgg ggctggacaa tctcattggc atcctggcca	1380
gcctggctga gagatgaggc tggactcctg tccccgggg ccgctcacct gacatgtgga	1440

## EX05-004patentin.txt

cctgcagctt tgtccccact gtgcatgccg gcttgagact ggagccccgc ggtgcagggc 1500  
 agttcaccgg gtcctgcagg accaggtgcc agccactaag ggggggcacc gccgatgcca 1560  
 ggggttttgc ccaccggggc ccagcgttc ccagagccaa atgacactaa cttatagaag 1620  
 gggagggggc aaagggttc ttcctcaggc cagctcttct gaggaggctc tgccctctcc 1680  
 agaggtgcca gaccgcggat tttatttagc aagcccagac cttccggtct aacgtctcac 1740  
 accacgacgg actccccctt ctaataaaac tcaaagacaa aa 1782

<210> 2  
 <211> 1837  
 <212> DNA  
 <213> Homo sapiens

<400> 2  
 ggtctccggc gcgccgcggg ctggtgggct cagcggcggc gccggcactg ggaaatgacc 60  
 ctgcccgggg gcccaacggg catggcgcgg cgggggggcg cgaggccctg cagcccgggg 120  
 ctggagcggg cccgcgcag gagtgtcggg gagctgcgcc tgctcttcga ggcgcgctgt 180  
 gcggcggtcg ctgcggccgc cgccgcgggg gagccccggg cccgcggggc caagcggcgt 240  
 gggggacagg tccccaacgg gcttcagcgg gctcccccg ccccggtgat ccctcagctg 300  
 accgtgacag ccgaggagcc cgacgtgccc ccgaccagcc ctgggccgcc ggagcgggag 360  
 agggactgcc tcccggcagc gggctcttcg cacctgcagc agccgcgccg cttttccacc 420  
 tcgtcgggtct cctccactgg ctctcgtcg ctgctcgagg actcgaggga cgacctgctg 480  
 agcgacagtg agagccggag ccgcggaac gtgcagctgg aagcgggga ggacgtgggt 540  
 cagaaaaacc actggcagaa gatccggacc atgggtcaatc tgccggtcat aagccctttc 600  
 aagaagcgt acgcctgggt gcagctggca gggcacactg ggagttttaa ggcggcgggc 660  
 accagcgggc tgatcctgaa gcgctgctcg gagccggagc gctactgcct ggcgcggctg 720  
 atggctgacg cgctgcgcgg ctgcgtgcct gccttccacg gcgtggtgga gcgcgacggc 780  
 gaaagctacc tgcagctgca ggacctgctc gatggcttcg acggaccttg tgtgctcgac 840  
 tgcaaaatgg gcgtcaggac ttacctagag gaggagctga ccaaggcccg tgagcggccc 900  
 aagctgcgga aggacatgta caagaaaatg ctggcgggtg atcctgaagc tccacggag 960  
 gaggagcacg cgcagcgcgc cgtcaccaag ccgcgctaca tgcaagtggc ggaaggcatc 1020  
 agctccagca ccaccctcg cttccgcacg gagggcatca agaaagcggc cggctcctgc 1080  
 agcaccgact tcaagactac gcgaagccga gagcagggtc ttgcgtctt tgaagagttt 1140  
 gtgcaaggag atgaggaagt gctgaggcgg tatctgaacc gcctgcagca gatccgggac 1200  
 accctggagg tatccgagtt cttcaggagg cacgagggtg tcggcagctc gctcctcttt 1260  
 gtgcacgatc actgccatcg cgccggcgtg tggctcatcg acttcggcaa gaccacgccc 1320  
 ctccccgatg gccagatcct ggaccaccgg cgccctggg aggagggcaa ccgcgaggac 1380  
 ggctatttgc tggggctgga caatctcatt ggcacatcct ccagcctggc tgagagatga 1440

EX05-004patentin.txt

ggctggactc	ctgtccccgc	gggccgctca	cctgacatgt	ggacctgcag	ctttgtcccc	1500
actgtgcatg	ccggcttgag	actggagccc	cgcggtgcag	ggcagttcac	cgggtcctgc	1560
aggaccaggt	gccagccact	aagggggggc	accgccgatg	ccagggggtt	tgcccacccg	1620
ggccccagcg	ttcccagagc	caaatgacac	taacttatag	aaggggaggg	ggcaaagggc	1680
ttcttcctca	ggccagctct	tctgaggagg	ctctgccctc	tccagagggtg	ccagaccgcg	1740
gattttattt	agcaagccca	gaccttccgg	tctaacgtct	cacaccacga	cggactcccc	1800
ttcctaataa	aactcaaaga	caaaaaaaaa	aaaaaaa			1837

<210> 3  
 <211> 5875  
 <212> DNA  
 <213> Homo sapiens

<400> 3						
ggagccgcgg	cgggcgccag	cgcgggaccc	agtactatgg	ctgtgtactg	ctatgcgctc	60
aatagcctgg	tgatcatgaa	tagcgccaac	gagatgaaga	gcgggcgccg	cccggggccc	120
agtggcagcg	agacgcccc	gccccgagg	agggcagtg	tgagccccg	cagcgttttc	180
agccccggga	gaggcgctc	tttctcttc	ccccagccg	agtcgctgtc	ccccgaggag	240
ccccggagcc	ccgggggctg	gcggagcggc	cggcgcaggc	tgaatagtag	cagcggcagt	300
ggcagcggca	gcagcggcag	tagcgtgagc	agcccaagtt	gggctggtcg	cctgcgaggg	360
gaccggcagc	aggtggtggc	agccggtacc	ctctccccgc	cagggccgga	ggaggccaag	420
aggaagctgc	ggatcttgca	gcgcgagttg	cagaacgtgc	aggtgaacca	gaaagtgggc	480
atgtttgagg	cgcacatcca	ggcacagagc	tccgccattc	aagcgccccg	cagccccgct	540
ttgggcaggg	ctcgctcgcc	ctccccgtgc	cccttccgca	gcagcagtca	gccccctgga	600
agggtcctgg	ttcaggggcg	ccggagcgag	gaacggagga	caaagtcctg	gggggagcaa	660
tgtccagaga	cttcaggaac	cgactccggg	aggaaaggag	ggcccagcct	atgctcctcg	720
cagggtgaaga	aaggaatgcc	acctcttccc	ggccgggctg	cccctacagg	atcagaggct	780
caggggtccat	ccgcttttgt	aaggatggag	aagggtatcc	ctgccagtcc	ccgctgtggc	840
tcaccacacag	ctatggaaat	tgacaaaagg	ggctctccta	ccccgggaac	tcggagctgc	900
ctagctccct	cattggggct	gttcggagct	agcttaacga	tggccacgga	agtggcagcg	960
agagttacat	ccactggggc	acaccgtcca	caggatcttg	ccctcactga	gccgtctggg	1020
agagcccgtg	agcttgagga	cctgcagccc	ccagaggccc	tgggtggagag	gcaggggagc	1080
tttctgggca	gtgagacaag	cccagcccca	gaaagggg	ggccccgcga	tggagaaccc	1140
cctgggaaga	tggggaaagg	atatctgccc	tgtggcatgc	cgggctctgg	ggagcctgaa	1200
gtgggcaaaa	ggccagagga	gacgactgtg	agcgtgcaaa	gcgcagagtc	ctctgattcc	1260
ctgagctggt	ccaggctgcc	cagggccctg	gcctccgtag	gccctgagga	ggcccgaagt	1320
ggggccccc	tggggcgggg	gcgttggcag	ctctccgaca	gagtggaggg	aggggtccca	1380
acgctgggct	tgcttggggg	cagccccctca	gcacagccgg	ggaccgggaa	tgtggaggcg	1440

## EX05-004patentin.txt

ggaattcctt	ctggcagaat	gctggagcct	ttgccctgtt	gggacgctgc	gaaagatctg	1500
aaagaacctc	agtgccctcc	tggggacagg	gtgggtgtgc	agcctgggaa	ctccagggtt	1560
tggcagggca	ccatggagaa	agccggtttg	gcttggacgc	gtggcacagg	ggtgcaatca	1620
gaggggactt	gggaaagcca	gcggcaggac	agtgatgccc	tcccaagtcc	ggagctgcta	1680
ccccaagatc	aggacaagcc	tttctgagg	aaggcctgca	gccccagcaa	catacctgct	1740
gtcatcatta	cagacatggg	caccaggag	gatggggcct	tggaggagac	gcaggggaagc	1800
cctcggggca	acctgcccct	gaggaaactg	tcctcttcct	cggcctcctc	cacgggcttc	1860
tcctcatcct	acgaagactc	agaggaggac	atctccagt	accctgagcg	caccctggac	1920
cccaactcag	ccttcctgca	taccctggac	cagcagaaac	ctagagttag	caaatcatgg	1980
aggaagataa	aaaacatggt	gactgggtct	cccttcgtca	tgtccttcaa	gaagaagtac	2040
ccctggatcc	agctggcagg	acacgcaggg	agtttcaagg	cagctgcaa	tggcaggatc	2100
ctgaagaagc	actgtgagtc	agagcagcgc	tgccctggacc	ggctgatggt	ggatgtgctg	2160
aggcccttcg	tacctgccta	ccatggggat	gtggtgaagg	acggggagcg	ctacaaccag	2220
atggacgacc	tgctggccga	cttcgactcg	ccctgtgtga	tggactgcaa	gatgggaatc	2280
aggacctacc	tggaggagga	gctcacgaag	gcccgggaaga	agcccagcct	gcggaaggac	2340
atgtaccaga	agatgatcga	ggtggacccc	gaggccccca	ccgaggagga	aaaagcacag	2400
cgggctgtga	ccaagccacg	gtacatgcag	tggcgggaga	ccatcagctc	cacggccacc	2460
ctgggggttca	ggatcgaggg	aatcaagaaa	gaagacggca	ccgtgaaccg	ggacttcaag	2520
aagacaaaaa	cgagggagca	ggtcaccgag	gccttcagag	agttcactaa	aggaaaccat	2580
aacatcctga	tcgcctatcg	ggaccggctg	aaggccattc	gaaccactct	agaagtttct	2640
cccttcttca	agtgccacga	ggtcattggc	agctccctcc	tcttcatcca	cgacaagaag	2700
gaacaggcca	aagtgtggat	gatcgacttt	gggaaaacca	cgcccctgcc	tgagggccag	2760
accctgcagc	atgacgtccc	ctggcaggag	gggaaccggg	aggatggcta	cctctcgggg	2820
ctcaataacc	tcgtcgacat	cctgaccgag	atgtcccagg	atgccccact	cgcctgagct	2880
gcccacgccc	tccctggccc	ccgcctgggc	ctcctttcct	cctcctgtgc	ttcctttctc	2940
gttcctaact	tttccttcac	ttacacctga	ctgaccctcc	tgaactgcac	tacaagacac	3000
tttgtagaag	aggagatgag	agtttctagt	cattttccta	acttcagggc	ttggagggtg	3060
tgtttgact	gctttttgta	gagaggggtca	cctactagaa	gagaaatgcc	cagtcttaga	3120
ggtgggtcag	gtgtagagct	ggaggggggtc	cctggctgct	gaggggaccc	taccagatga	3180
gccctgcctc	tgggagcccc	ctaggaagca	ccagcctgga	cctaccacct	gcggaggcct	3240
gctgccccct	ggcgggccagt	gctgttagag	tgctgccaa	cacagcctta	tttctgccgg	3300
ggcctcccca	ccggagagcc	cagggggccg	gccgggttcc	tggtccttgg	ctgggagcag	3360
ggctttctgg	tagttggggc	acaaaaccat	cggggaacca	catgttgact	gtgagcaaag	3420
tgtcttccga	ttagcagcct	cagggatgcc	ctggtggcct	ctccagggct	gctcaggcaa	3480

## EX05-004patentin.txt

ggccccccac	ccatctggta	tggaacacctg	ccggctccag	gccagacca	ggagccaaga	3540
gaaggctgaa	gccagcttgg	ctgtgttctc	tgatctaggc	cttcccagag	gaggcgagca	3600
gaagctgtgc	cacttggaat	tgcaacccat	gagttcagaa	ggcacactct	gccatgctga	3660
gctccaaggg	tgctaccagg	ggaagatggg	atctatagag	tctctgggcc	ctggccccag	3720
ggaggagcac	atttttcttg	accctcacct	acctggtgct	agttggtcaa	ccctgcctgc	3780
atacatgggc	tcctgtcatg	gggcccagag	tcccttgca	atatagaaat	aggggaggag	3840
ctcaggctctg	cgccaggcag	gaagaaggca	ggcttctggc	ttccagaggt	gccgcggtgg	3900
cctcctggca	tcatTTgtta	ttgcctctga	aacaagcctt	actgcctgga	gggcttagat	3960
tcctgcttct	ccaatgtagt	gtgggtatct	tgtagggtat	gtggtggatg	ccagggcgtg	4020
ctccaggcac	ctcttcctga	agtctctgca	tttgagagatt	cgtggagaac	ctattttaagc	4080
ccaattttaa	ctgaaagcca	gtgagtctga	tatggaaggg	aatgtaaaat	ttgcctgact	4140
tcttaagaac	aaaacccccca	gctctgtgcc	ccatgctcct	tggggcttgc	caccactcc	4200
tttgctgtca	gaggtacagg	agctgggaga	gtccaggagc	tagggacaca	gagggagact	4260
atggaccaag	gtgtgtgtgt	ctggaggaac	cactgcccac	cccaccacc	cggggtctct	4320
ggggaactgt	caacctgccc	acgggacatg	tacatttccc	cttttgctgct	ggaagtgtga	4380
gtgacacttg	ctgggggtgg	aggggtgggac	acatgaggat	gtataagtac	agattttaaa	4440
aaaggaaatc	aacttacact	tcctggctct	tgtttaaaac	agtgggtgagc	tcctgtgtgg	4500
gccgacttgc	taaaggtcac	acacgcgccc	ggtggagcac	gagagacctc	gtggcagcat	4560
gtgatctgga	aggcaggcag	gacgggggcg	ttggggagcc	aaagtcaact	ctgggcctct	4620
ggagctatag	tgacttttgg	gctagaaggg	accctggtgg	tctgtgcttc	agccatttgc	4680
agggcagggg	catcattaat	tcagacgtaa	agattctatg	aatatggact	ggccaaaagt	4740
tatccttact	ccatctgtga	aagaagtttg	ctaaagcaaa	tcatgatatg	aacaaaaatt	4800
acaggggacc	tgtttaagag	aacaaaatgt	tccaagcact	ttaggcagac	accagctgtt	4860
tgcaacaat	gtgctaatat	gcaaatgatg	tgcttattaa	aggaggccca	tggggcctct	4920
tattggcaat	acttggtgtg	gggttacatt	aaatatgtga	acatagtatg	aagtagcatc	4980
attttagggt	tattctgtta	cttagggttt	ttgttttctg	tttttttttt	ctcttttttt	5040
gtattttaccg	tgctagttct	cttctacacc	tactctgtct	ctcaagccat	tttgccactc	5100
gcttccctgc	catctggccc	ttccctttgt	ctcagtggga	tagatggatt	gtgaaatgga	5160
atctcccaga	accctgccc	tggcagcctg	gaagaccgtg	cctgcccagc	cctcgtcacc	5220
acagggactc	cttgggtcct	ggcagtgcac	gtgccagcag	gcaggacaaa	ctctgtgtac	5280
ctgtgcccag	gtgaatgggc	gcagggtcct	cttgccctgt	cctgcggggg	gccccacgag	5340
ttcctggcat	tcagcactgc	ttagcattct	cggaaggttt	cttcaactgc	ttgcttttcc	5400
caggcttgcc	tttagtgtca	tgtaaagacat	ttttaagtta	tattttatttt	gttgggtttt	5460
aaaattgcac	agaacactaa	gaccgaaagg	ctggactcct	gtttctcctt	gaaagctttg	5520

## EX05-004patentin.txt

cctttgtttt	gaacttcctt	tcccacttgg	tagaaagagc	ccagaagcag	ccctggccct	5580
gtaagatgga	ctctttcatc	cttcagttgt	atthagcttt	gagtttctct	gcatctgtcc	5640
accccatgtg	tatataaccc	agcccctggc	tctggggtgg	tcacctcgtc	agtgcctttt	5700
gttctggagg	agaggacccc	ccccgcctgc	cgagaggctc	tcttcctggt	ctgcacccct	5760
ctcccatggt	gaccttggag	aaaactgaac	tgttacaaac	ccctgcacag	tgctgtcaa	5820
acagatgcaa	accttcctga	ataaagcctt	ggagaccaa	aaaaaaaaa	aaaaa	5875

<210> 4  
 <211> 4505  
 <212> DNA  
 <213> Homo sapiens

<400> 4						
gaattccgga	gggaggggtcc	ccaacgctgg	gcttgcttgg	gggcagcccc	tcagcacagc	60
cggggaccgg	gaatgtggag	gcgggaattc	cttctggcag	aatgctggag	cctttgccct	120
gttgggacgc	tgcgaaagat	ctgaaagaac	ctcagtcccc	tcctggggac	aggggtgggtg	180
tgcagcctgg	gaactccagg	gtttggcagg	gcaccatgga	gaaagccggt	ttggcttggg	240
cgcggtggc	aggggtgcaa	tcagagggga	cttgggaaag	ccagcggcag	gacagtgatg	300
ccctcccaag	tccggagctg	ctaccccaag	atcaggacaa	gcctttcctg	aggaaggcct	360
gcagccccag	caacatacct	gctgtcatca	ttacagacat	gggcacccag	gaggatgggg	420
ccttgaggga	gacgcaggga	agccctcggg	gcaacctgcc	cctgaggaaa	ctgtcctctt	480
cctcggcctc	ctccacgggc	ttctcctcat	cctacgaaga	ctcagaggag	gacatctcca	540
gtgaccctga	gcgcaccttg	gaccccaact	cagctttcct	gcataccctg	gaccagcaga	600
aacctagagt	gagcaaatca	tggaggaaga	taaaaaacat	ggtgacttgg	tctcccttcg	660
tcattgtcctt	caagaagaag	tacccttgga	tccagctggc	aggacacgca	gggagtttca	720
aggcagctgc	caatggcagg	atcctgaaga	agcactgtga	gtcagagcag	cgctgcctgg	780
accggctgat	ggtggatgtg	ctgaggccct	tcgtacctgc	ctaccatggg	gatgtggtga	840
aggacgggga	gcgctacaac	cagatggacg	acctgctggc	cgacttcgac	tcgccctgtg	900
tgatggactg	caagatggga	atcaggacct	acctggagga	ggagctcacg	aaggccccga	960
agaagcccag	cctgcggaag	gacatgtacc	agaagatgat	cgaggtggac	cccgaggccc	1020
ccaccgagga	ggaaaaagca	cagcgggctg	tgaccaagcc	acggtacatg	cagtggcggg	1080
agaccatcag	ctccacggcc	accctggggt	tcaggatcga	gggaatcaag	aaagaagacg	1140
gcaccgtgaa	ccgggacttc	aagaagacca	aaacgagggg	gcaggctcacc	gaggccttca	1200
gagagtccac	taaaggaaac	cataacatcc	tgatcgccct	tcgggaccgg	ctgaaggcca	1260
ttcgaaccac	tctagaagtt	tctcccttct	tcaagtgcc	cgaggctcatt	ggcagctccc	1320
tcctcttcat	ccacgacaag	aaggaacagg	caaagtgtg	gatgatcgac	tttgggaaaa	1380
ccacgcccct	gcctgagggc	cagaccctgc	agcatgacgt	cccctggcag	gaggggaacc	1440

## EX05-004patentin.txt

gggaggatgg	ctacctctcg	gggctcaata	acctcgtcga	catcctgacc	gagatgtccc	1500
aggatgcccc	actcgccctga	gctgcccacg	ccctccctgg	ccccgcctg	ggcctccttt	1560
cctcctcctg	tgcttccttt	ctcgttccta	acttttcctt	cacttacacc	tgactgaccc	1620
tcctgaactg	cactacaaga	cactttgtag	aagaggagat	gagagtttct	agtcattttc	1680
ctaacttcag	ggcttgagg	tggtgtttgc	actgcttttt	gtagagaggg	tcacctacta	1740
gaagagaaat	gcccgagtctt	agagggtgggt	cagggtgtaga	gctggagggg	gtccctggct	1800
gctgagggga	ccctaccaga	tgagccctgc	ctctgggagc	cccctaggaa	gcaccagcct	1860
ggacctacca	cctgcggagg	cctgctgccc	cctggcgggc	agtgtctgta	gagtgtctgcc	1920
aagcacagcc	ttattttctgc	cggggcctcc	ccaccggaga	gcccgagggg	ccggccgggt	1980
tcctggtccc	tggtgaggag	cagggtcttc	tggtagtgtg	ggcacaaaac	catcggggaa	2040
ccacatgttg	actgtgagca	aagtgtcttc	cgattagcag	cctcagggat	gccctggtgg	2100
cctctccagg	gctgctcagg	caaggccccc	caccatctg	gtatggaaac	ctgccggctc	2160
caggccagac	ccaggagcca	agagaaggct	gaagccagct	tggtgtgttt	ctctgatcta	2220
ggccttccca	gaggaggcga	gcagaagctg	tgccacttg	aattgcaacc	catgagttca	2280
gaaggcacac	tctgccatgc	tgagctcaa	gggtgctacc	aggggaagat	gggatctata	2340
gagtctctgg	gccctggccc	cagggaggag	cacatcttcc	ttgaccctca	cctacctggt	2400
gctagtgtgt	caaccctgcc	tgcatatg	ggctcctgtc	atggggccca	gagtcccttg	2460
cagatataga	aataggggag	gagctcaggt	ctgcgccagg	caggaagaag	gcaggcttct	2520
ggcttccaga	ggtgccgcgg	tgccctcctg	gcatcatttg	ttattgcctc	tgaaacaagc	2580
cttactgcct	ggagggttga	gattcctgct	tccccaatgt	agtgtgggta	tcttgtaggg	2640
tatgtggtgg	atgccagggc	gtgctccagg	cacctcttcc	tgaagtctct	gcatttgagg	2700
attcgtggag	aacctattta	agcccaattt	taactgaaag	ccagtgagtc	tgatatggaa	2760
gggaatgtaa	aatttgccctg	acttcttaag	aacaaaaccc	ccagctctgt	gccccatgct	2820
ccttggggct	tgccaccac	tcctttgctg	tcagaggtag	aggagctggg	agagtccagg	2880
agctagggac	acagagggag	actatggacc	aagggtgtgtg	tgtctggagg	aaccactgcc	2940
cacccaccca	ccccggggtc	tctggggaac	tgtcaacctg	cccacgggac	atgtacattt	3000
ccccttttgt	gctggaagtg	tgagtgcac	ttgtctgggg	tgagggtgg	gacacatgag	3060
gatgtataag	tacagatttt	aaaaaaggaa	atcaacttac	acttcctggc	tcttgtttta	3120
aacagtgggtg	agtcctgtg	tgggccgact	tgctaaagg	cacacacgcg	ccgggtggag	3180
cacgagagac	ctcgtggcag	catgtgatct	ggaaggcagg	caggacgggg	gcgttgggga	3240
gccaagtca	actctgggccc	tctggagcta	tagtgacttt	tggtctagaa	gggacctgg	3300
tggtctgtgc	ttcagccatt	tgacgggcag	gggcatcatt	aattcagacg	ttaaagattct	3360
atgaatatgg	actggccaaa	agttatcctt	actccatctg	tgaaagaagt	ttgctaaagc	3420
aaatcatgat	atgaacaaaa	attacagggg	acctgtttta	gagaacaaaa	tgttccaagc	3480

EX05-004patentin.txt

```

actttaggca gacaccagct gtttgcaaac aatgtgctaa tatgcaaag atgtgcttat 3540
taaaggaggc ccatggggcc tcttattggc aatacttggc tgtgggttac attaaatatg 3600
tgaacatagt atgaagtagc atcatttttag ggttattctg ttacttaggg tttttgtttt 3660
ctgttttttt tttctctttt tttgtattta ccgtgctagt tctcttctac acctactctg 3720
tctctcaagc catttttgcca ctgcgttccc tgccatctgg cccttccctt tgtctcagtg 3780
ggatagatgg attgtgaaat ggaatctccc agaaccctg ccctggcagc ctggaagacc 3840
gtgcctgccc agccctcgtc accacaggga ctccctgggt cctggcagtg catgtgccag 3900
caggcaggac aaactctgtg tacctgtgcc cagggtgaatg ggcgcagggt cctcttgccc 3960
tgtcctgcgg ggggccccac gagttcctgg cattcagcac tgcttagcat tctcggaagg 4020
tttcttcaac tgcttgcttt tcccaggctt gccttttagtg tcatgtaaga catttttaag 4080
ttatatattat tttgttgggt tttaaaattg cacagaacac taagaccgaa aggctggact 4140
cttgtttctc cttgaaagct ttgcctttgt tttgaacttc ctttcccact tggtagaaag 4200
agcccagaag cagccctggc cctgtaagat ggactctttc atccttcagt tgtatttagc 4260
tttgagtttc tctgcatctg tccaccccat gtgtatataa cccagcccct ggctctgggg 4320
tggtcacctc gtcagtgcct tttgttctgg aggagaggac ccccccgcct gccgagaggc 4380
tctcttctg ttctgcaccc ctctcccat gggaccttg agaaaactga actgttacia 4440
accctgcac agtgcctgtc aaacagatgc aaaccttct gaataaagcc ttggagacgg 4500
aatc 4505

```

```

<210> 5
<211> 3010
<212> DNA
<213> Homo sapiens

```

```

<400> 5
cctctttttt gtcttccata gcttgtgaga aaataatttc tgagcatttt tactttttaa 60
gccatctcgt ccctacgagg tttgcgcctc tgggcatgta gtctacacag gacctgagaa 120
tctgagaaac tgcagccgca cggttgttta tggagctttg ggcgggggct gagcccgagg 180
tcgtgcccc agcccgtgc ccaggccatg ccgccccatc tgcgcgcgga gccgcggctg 240
ccgggcctcc ggggctgagc cgggagcgcc gggaggagga ggcgcggcg gcggagcagg 300
agcgggagcc gcggcgggcg gcagcgcggg acccagtact atggctgtgt actgctatgc 360
gctcaatagc ctggtgatca tgaatagcgc caacgagatg aagagcggcg gcggcccggg 420
gccagtggc agcgagacgc ccccgcccc gaggagggca gtgctgagcc ccggcagcgt 480
tttcagcccc gggagaggcg cctctttcct cttcccccca gccgagtcgc tgtccccga 540
ggagccccgg agccccgggg gctggcgagg cggccggcg aggctgaata gtagcagcgg 600
cagtggcagc ggcagcagcg gcagtagcgt gagcagccca agttgggctg gtcgcctgcg 660
aggggaccgg cagcaggtgg tggcagccgg taccctctcc ccgccagggc cggaggaggc 720
caagaggaag ctgcggatct tgcagcgca gttgcagaac gtgcaggtga accagaaagt 780

```



## EX05-004patentin.txt

gggcatgttt	gaggcgacaca	tccaggcaca	gagctccgcc	attcaagcgc	cccgagccc	840
gcgtttgggc	agggtcact	cgccctcccc	gtgccccttc	cgagcagca	gtcagcccc	900
tggaagggtc	ctggttcagg	gcgcccggag	cgaggaacgg	aggacaaagt	cctgggggga	960
gcaatgtcca	gagacttcag	gaaccgactc	cgggaggaaa	ggagggccca	gcctatgctc	1020
ctcgaggtg	aagaaaggaa	tgccacctct	tcccggccgg	gctgccccta	caggatcaga	1080
ggctcaggg	ccatccgctt	ttgtaaggat	ggagaaggg	atccctgcca	gtccccgctg	1140
tggctcacc	acagctatgg	aaattgacaa	aaggggctct	cctaccccgg	gaactcggag	1200
ctgcctagct	ccctcattgg	ggctgttcgg	agctagctta	acgatggcca	cggaagtggc	1260
agcgagagtt	acatccactg	ggccacaccg	tccacaggat	cttgccctca	ctgagccgtc	1320
tgggagagcc	cgtgagcttg	aggacctgca	gccccagag	gccctggtgg	agaggcaggg	1380
gcagtttctg	ggcagtgaga	caagcccagc	cccagaaagg	ggcgggccc	gcgatggaga	1440
acccctggg	aagatgggga	aaggatatct	gccctgtggc	atgccgggct	ctggggagcc	1500
tgaagtgggc	aaaaggccag	aggagacgac	tgtgagcgtg	caaagcgag	agtcctctga	1560
tgccctgagc	tggtccaggc	tgcccagggc	cctggcctcc	gtaggccctg	aggaggcccg	1620
aagtggggcc	cccgtgggcg	gggggcgttg	gcagctctcc	gacagagtgg	agggagggtc	1680
cccaacgctg	ggcttgcttg	ggggcagccc	ctcagcacag	ccggggaccg	ggaatgtgga	1740
ggcggaatt	ccttctggca	gaatgctgga	gcctttgccc	tggtgggacg	ctgcgaaaga	1800
tctgaaagaa	cctcagtgcc	ctcctgggga	caggggtggg	gtgcagcctg	ggaactccag	1860
ggtttggcag	ggcaccatgg	agaaagccgg	tttggtcttg	acgcgtggca	caggggtgca	1920
atcagagggg	acttgggaaa	gccagcggca	ggacagtgat	gccctcccaa	gtccggagct	1980
gctaccccaa	gatcaggaca	agcctttcct	gaggaaggcc	tgagcccca	gcaacatacc	2040
tgctgtcatc	attacagaca	tgggcaccca	ggaggatggg	gccttgagg	agacgcaggg	2100
aagccctcgg	ggcaacctgc	ccctgaggaa	actgtcctct	tcctcggcct	cctccacggg	2160
cttctcctca	tcctacgaag	actcagagga	ggacatctcc	agtgaccctg	agcgcaccct	2220
ggaccccaac	tcagccttcc	tgcataccct	ggaccagcag	aaacctagag	tgtgacttct	2280
tgggaagtgt	ttccctcagt	ggtactgctg	gggcaacgtc	caataccaag	aatgatgtat	2340
agcatatttc	atcttcctac	actactctct	ggaaagactg	agccaattac	ggggtcatct	2400
gtaaagtcta	agtgtgcag	tttccctacg	accattggat	tttgtttgta	gtttgatatt	2460
gtcttactgt	cccttgaaagt	tgtaatttgt	aattcttttag	ttttcaagag	ggactctaca	2520
tgtttccttg	tgatgatggc	cttgagttac	tcatgtgtac	actgcctatt	tatccccatt	2580
gagccccac	tgcccgaaca	tgttgatggc	attttatata	gtaagctgtc	agttacttaa	2640
tgtacaaata	ttcttccatt	ccatgttttt	ctcttaaaat	tttactttat	tggccaggcg	2700
cagtggctca	catctgtaat	cccagcactt	taggaggcca	aggcgggagg	atcacctgag	2760
gtcaagagat	tgagaccagc	ctggccaaca	tggtgaaacc	ccgtctctac	taaaaaatac	2820

## EX05-004patentin.txt

```

aaaaattagc caggtgtagt ggtgggcacc tgtaatccca gctacttggg aggctgaggc 2880
aggagaattg cttgaacctg agaggcggag gttgcggtga gccgagatag caccactgca 2940
ctccagcctg ggcgaaagag ctaaactcca tctcaaaaat aaataaataa ataaaaaaaa 3000
aaaaaaaaaa 3010

```

```

<210> 6
<211> 3398
<212> PRT
<213> Homo sapiens
<400> 6

```

```

Gly Gly Gly Thr Cys Gly Gly Cys Cys Gly Ala Ala Gly Cys Cys Cys
1      5      10      15

```

```

Gly Ala Ala Cys Cys Gly Ala Ala Gly Gly Ala Gly Cys Gly Gly Gly
20      25      30

```

```

Cys Ala Thr Gly Ala Gly Gly Cys Gly Cys Thr Gly Cys Cys Cys Gly
35      40      45

```

```

Thr Gly Cys Cys Gly Thr Gly Gly Gly Ala Gly Cys Cys Thr Gly Ala
50      55      60

```

```

Ala Cys Gly Ala Gly Gly Cys Gly Gly Ala Gly Gly Cys Cys Gly Gly
65      70      75      80

```

```

Gly Gly Cys Gly Cys Thr Gly Cys Cys Cys Gly Cys Gly Gly Cys Gly
85      90      95

```

```

Gly Cys Cys Cys Gly Cys Ala Thr Gly Gly Gly Ala Cys Thr Gly Gly
100     105     110

```

```

Ala Gly Gly Cys Gly Cys Cys Gly Cys Gly Ala Gly Gly Ala Gly Gly
115     120     125

```

```

Gly Cys Gly Gly Cys Gly Gly Cys Gly Gly Cys Ala Gly Cys Cys Gly
130     135     140

```

```

Gly Gly Ala Cys Ala Gly Cys Ala Gly Cys Gly Ala Cys Cys Thr Gly
145     150     155     160

```

```

Gly Gly Cys Cys Cys Gly Gly Cys Gly Cys Ala Gly Gly Gly Gly Cys
165     170     175

```

```

cys cys cys Gly Gly Cys Gly Gly Gly Gly Cys Gly Gly Cys Cys Gly
180     185     190

```

```

Gly Ala Gly Gly Gly Gly Gly Gly Cys Gly Gly Gly Cys Cys Cys Thr
195     200     205

```

## EX05-004patentin.txt

Gly Gly Gly Cys Cys Cys Gly Gly Ala Cys Ala Gly Ala Gly Gly Gly  
 210 215 220  
 Gly Thr Cys Cys Ala Gly Cys Cys Thr Cys Cys Ala Cys Ala Gly Cys  
 225 230 235 240  
 Gly Ala Gly Cys Cys Thr Gly Ala Gly Ala Gly Gly Gly Cys Cys Gly  
 245 250 255  
 Gly Cys Cys Thr Cys Gly Gly Gly Cys Cys Thr Gly Cys Gly Cys Cys  
 260 265 270  
 Gly Gly Gly Gly Ala Cys Ala Gly Ala Gly Ala Gly Thr Cys Cys Gly  
 275 280 285  
 Cys Ala Gly Gly Cys Ala Gly Ala Ala Thr Thr Cys Thr Gly Gly Ala  
 290 295 300  
 Cys Ala Gly Ala Cys Gly Gly Ala Cys Ala Gly Ala Cys Thr Gly Ala  
 305 310 315 320  
 Gly Cys Cys Cys Gly Cys Gly Gly Cys Ala Gly Cys Thr Gly Gly Cys  
 325 330 335  
 Cys Thr Thr Gly Gly Ala Gly Thr Ala Gly Ala Gly Ala Cys Cys Gly  
 340 345 350  
 Ala Gly Ala Gly Gly Cys Cys Cys Ala Ala Gly Cys Ala Ala Ala Ala  
 355 360 365  
 Gly Ala Cys Gly Gly Ala Gly Cys Cys Ala Gly Ala Cys Ala Gly Gly  
 370 375 380  
 Thr Cys Cys Ala Gly Cys Cys Thr Cys Cys Gly Gly Ala Cys Gly Cys  
 385 390 395 400  
 Ala Thr Cys Thr Ala Gly Ala Ala Thr Gly Gly Ala Gly Cys Thr Gly  
 405 410 415  
 Gly Thr Cys Ala Gly Ala Gly Cys Thr Gly Gly Ala Gly Ala Cys Gly  
 420 425 430  
 Ala Cys Thr Thr Gly Thr Cys Thr Thr Thr Gly Gly Ala Cys Gly Gly  
 435 440 445  
 Ala Gly Ala Cys Cys Gly Gly Gly Ala Cys Ala Gly Ala Thr Gly Gly  
 450 455 460  
 Cys Cys Thr Thr Thr Gly Gly Ala Cys Thr Gly Ala Thr Cys Cys Gly  
 465 470 475 480

## EX05-004patentin.txt

cys Ala cys Ala Gly Gly Thr cys cys Gly Ala cys cys Thr cys cys  
 485 490 495  
 Ala Gly Thr Thr Thr cys Ala Gly cys cys cys Gly Ala Gly Gly Ala  
 500 505 510  
 Gly Gly cys cys Ala Gly cys cys cys cys Thr Gly Gly Ala cys Ala  
 515 520 525  
 cys Ala Gly cys cys Ala Gly Gly Gly Gly Thr Thr cys Ala Thr Gly  
 530 535 540  
 Gly Gly cys cys cys Thr Gly Gly Ala cys Ala Gly Ala Gly cys Thr  
 545 550 555 560  
 Gly Gly Ala Ala Ala cys Gly cys Ala Thr Gly Gly Gly Thr cys Ala  
 565 570 575  
 cys Ala Gly Ala cys Thr cys Ala Gly cys cys Ala Gly Ala Gly Ala  
 580 585 590  
 Gly Gly Gly Thr cys Ala Ala Gly Thr cys cys Thr Gly Gly Gly cys  
 595 600 605  
 Thr Gly Ala Thr Ala Ala cys cys Thr cys Thr Gly Gly Ala cys cys  
 610 615 620  
 cys Ala cys cys Ala Gly Ala Ala cys Ala Gly Thr Thr cys cys Ala  
 625 630 635 640  
 Gly cys cys Thr cys cys Ala Gly Ala cys Thr cys Ala cys cys cys  
 645 650 655  
 Ala Gly Ala Ala Gly Gly Ala Gly cys cys Thr Gly Thr cys cys cys  
 660 665 670  
 Thr cys Ala Ala Ala Ala Gly Ala Gly cys cys Ala Ala Gly Thr Gly  
 675 680 685  
 cys Thr Gly Ala Thr Gly Gly cys Thr cys cys Thr Gly Gly Ala Ala  
 690 695 700  
 Ala Gly Ala Ala Thr Thr Gly Thr Ala Thr Ala cys Thr Gly Ala Thr  
 705 710 715 720  
 Gly Gly cys Thr cys cys Ala Gly Gly Ala cys Ala cys Ala Ala cys  
 725 730 735  
 Ala Gly Gly Ala Thr Ala Thr Thr Gly Ala Ala Gly Gly Thr cys cys  
 740 745 750

EX05-004patentin.txt

cys Thr Gly Gly Ala cys Ala Gly Ala Gly Cys Cys Ala Thr Ala Thr  
 755 760 765  
 Ala cys Thr Gly Ala Thr Gly Gly Cys Thr Cys Cys Cys Ala Gly Ala  
 770 775 780  
 Ala Ala Ala Ala Ala cys Ala Gly Gly Ala Thr Ala Cys Thr Gly Ala  
 785 790 795 800  
 Ala Gly Cys Ala Gly Cys Cys Ala Gly Gly Ala Ala Ala Cys Ala Gly  
 805 810 815  
 cys cys Thr Gly Gly Cys Ala cys Thr Gly Gly Thr Gly Gly Thr Thr  
 820 825 830  
 Thr cys cys Ala Ala Ala Thr Ala Cys Ala Ala Cys Ala Gly Gly Ala  
 835 840 845  
 Thr Ala Cys Thr Gly Ala Thr Gly Gly Cys Thr Cys Cys Thr Gly Gly  
 850 855 860  
 Ala cys Ala Cys Ala Ala Cys Cys Thr Ala Gly Cys Ala Cys Thr Gly  
 865 870 875 880  
 Ala Cys Gly Gly Thr Thr Cys Cys Cys Ala Gly Ala Cys Ala Gly Cys  
 885 890 895  
 Ala Cys Cys Thr Gly Gly Gly Ala cys Ala Gly Ala Cys Thr Gly Cys  
 900 905 910  
 cys Thr cys Thr Thr Gly Gly Gly Ala Gly Ala Gly cys cys Thr Gly  
 915 920 925  
 Ala Gly Gly Ala Thr Gly Gly Cys Cys Cys Ala Thr Thr Ala Gly Ala  
 930 935 940  
 Gly Gly Ala Ala Cys cys Ala Gly Ala Gly cys cys Thr Gly Gly Ala  
 945 950 955 960  
 Gly Ala Ala Thr Thr Gly Cys Thr Gly Ala Cys Thr Cys Ala cys cys  
 965 970 975  
 Thr Gly Thr Ala Cys Thr Cys Thr cys Ala Cys Cys Thr Gly Ala Ala  
 980 985 990  
 Gly Thr Gly Thr Ala Gly Cys cys cys cys cys Thr Gly Thr Gly Cys  
 995 1000 1005  
 cys cys Thr Gly Thr Gly cys cys cys cys Gly cys cys Thr cys  
 1010 1015 1020

EX05-004patentin.txt

Ala Thr Cys Ala Thr Thr Ala Cys Cys Cys Cys Thr Gly Ala Gly  
 1025 1030 1035  
 Ala Cys Cys Cys Cys Thr Gly Ala Gly Cys Cys Thr Gly Ala Gly  
 1040 1045 1050  
 Gly Cys Cys Cys Ala Gly Cys Cys Ala Gly Thr Gly Gly Ala  
 1055 1060 1065  
 Cys Cys Cys Cys Cys Thr Cys Cys Cys Gly Gly Gly Thr Thr  
 1070 1075 1080  
 Gly Ala Gly Gly Gly Gly Gly Cys Ala Gly Cys Gly Gly Cys  
 1085 1090 1095  
 Gly Gly Cys Thr Thr Cys Thr Cys Cys Thr Cys Thr Gly Cys Cys  
 1100 1105 1110  
 Thr Cys Thr Thr Cys Thr Thr Thr Cys Gly Ala Cys Gly Ala Gly  
 1115 1120 1125  
 Thr Cys Thr Gly Ala Gly Gly Ala Thr Gly Ala Cys Gly Thr Gly  
 1130 1135 1140  
 Gly Thr Gly Gly Cys Cys Gly Gly Gly Gly Cys Gly Gly Ala  
 1145 1150 1155  
 Gly Gly Thr Gly Cys Cys Ala Gly Cys Gly Ala Thr Cys Cys Cys  
 1160 1165 1170  
 Gly Ala Gly Gly Ala Cys Ala Gly Gly Thr Cys Thr Gly Gly Gly  
 1175 1180 1185  
 Ala Gly Cys Ala Ala Ala Cys Cys Cys Thr Gly Gly Ala Ala Gly  
 1190 1195 1200  
 Ala Ala Gly Cys Thr Gly Ala Ala Gly Ala Cys Ala Gly Thr Thr  
 1205 1210 1215  
 Cys Thr Gly Ala Ala Gly Thr Ala Thr Thr Cys Ala Cys Cys Cys  
 1220 1225 1230  
 Thr Thr Thr Gly Thr Gly Gly Thr Cys Thr Cys Cys Thr Thr Cys  
 1235 1240 1245  
 Cys Gly Ala Ala Ala Ala Cys Ala Cys Thr Ala Cys Cys Cys Thr  
 1250 1255 1260  
 Thr Gly Gly Gly Thr Cys Cys Ala Gly Cys Thr Thr Thr Cys Thr  
 1265 1270 1275

EX05-004patentin.txt

Gly Gly Ala Cys Ala Thr Gly Cys Thr Gly Gly Gly Ala Ala Cys  
 1280 1285 1290  
 Thr Thr Cys Cys Ala Gly Gly Cys Ala Gly Gly Ala Gly Ala Gly  
 1295 1300 1305  
 Gly Ala Thr Gly Gly Thr Cys Gly Gly Ala Thr Thr Cys Thr Gly  
 1310 1315 1320  
 Ala Ala Ala Cys Gly Thr Thr Thr Cys Thr Gly Thr Cys Ala Gly  
 1325 1330 1335  
 Thr Gly Thr Gly Ala Gly Cys Ala Gly Cys Gly Cys Ala Gly Cys  
 1340 1345 1350  
 Cys Thr Gly Gly Ala Gly Cys Ala Gly Cys Thr Gly Ala Thr Gly  
 1355 1360 1365  
 Ala Ala Ala Gly Ala Cys Cys Cys Gly Cys Thr Gly Cys Gly Ala  
 1370 1375 1380  
 Cys Cys Thr Thr Thr Cys Gly Thr Gly Cys Cys Thr Gly Cys Cys  
 1385 1390 1395  
 Thr Ala Cys Thr Ala Thr Gly Gly Cys Ala Thr Gly Gly Thr Gly  
 1400 1405 1410  
 Cys Thr Gly Cys Ala Gly Gly Ala Thr Gly Gly Cys Cys Ala Gly  
 1415 1420 1425  
 Ala Cys Cys Thr Thr Cys Ala Ala Cys Cys Ala Gly Ala Thr Gly  
 1430 1435 1440  
 Gly Ala Ala Gly Ala Cys Cys Thr Cys Cys Thr Gly Gly Cys Thr  
 1445 1450 1455  
 Gly Ala Cys Thr Thr Thr Gly Ala Gly Gly Gly Cys Cys Cys Cys  
 1460 1465 1470  
 Thr Cys Cys Ala Thr Thr Ala Thr Gly Gly Ala Cys Thr Gly Cys  
 1475 1480 1485  
 Ala Ala Gly Ala Thr Gly Gly Gly Cys Ala Gly Cys Ala Gly Gly  
 1490 1495 1500  
 Ala Cys Cys Thr Ala Thr Cys Thr Gly Gly Ala Ala Gly Gly Ala Gly  
 1505 1510 1515  
 Gly Ala Gly Cys Thr Ala Gly Thr Gly Ala Ala Gly Gly Cys Ala  
 1520 1525 1530

## EX05-004patentin.txt

Cys Gly Gly Gly Ala Ala Cys Gly Thr Cys Cys Cys Cys Gly Thr  
 1535 1540 1545  
 Cys Cys Cys Cys Gly Gly Ala Ala Gly Gly Ala Cys Ala Thr Gly  
 1550 1555 1560  
 Thr Ala Thr Gly Ala Gly Ala Gly Ala Thr Gly Gly Thr Gly  
 1565 1570 1575  
 Gly Cys Thr Gly Thr Gly Gly Ala Cys Cys Cys Thr Gly Gly Gly  
 1580 1585 1590  
 Gly Cys Cys Cys Cys Thr Ala Cys Cys Cys Cys Thr Gly Ala Gly  
 1595 1600 1605  
 Gly Ala Gly Cys Ala Thr Gly Cys Cys Cys Ala Gly Gly Gly Thr  
 1610 1615 1620  
 Gly Cys Ala Gly Thr Cys Ala Cys Cys Ala Ala Gly Cys Cys Cys  
 1625 1630 1635  
 Cys Gly Cys Thr Ala Cys Ala Thr Gly Cys Ala Gly Thr Gly Gly  
 1640 1645 1650  
 Ala Gly Gly Gly Ala Ala Ala Cys Cys Ala Thr Gly Ala Gly Cys  
 1655 1660 1665  
 Thr Cys Cys Ala Cys Cys Thr Cys Thr Ala Cys Cys Cys Thr Gly  
 1670 1675 1680  
 Gly Gly Cys Thr Thr Cys Cys Gly Gly Ala Thr Cys Gly Ala Gly  
 1685 1690 1695  
 Gly Gly Cys Ala Thr Cys Ala Ala Gly Ala Ala Gly Cys Ala  
 1700 1705 1710  
 Gly Ala Thr Gly Gly Gly Ala Cys Cys Thr Gly Thr Ala Ala Cys  
 1715 1720 1725  
 Ala Cys Cys Ala Ala Cys Thr Thr Cys Ala Ala Gly Ala Ala Gly  
 1730 1735 1740  
 Ala Cys Gly Cys Ala Gly Gly Cys Ala Cys Thr Gly Gly Ala Gly  
 1745 1750 1755  
 Cys Ala Gly Gly Thr Gly Ala Cys Ala Ala Ala Ala Gly Thr Gly  
 1760 1765 1770  
 Cys Thr Gly Gly Ala Gly Gly Ala Cys Thr Thr Cys Gly Thr Gly  
 1775 1780 1785



EX05-004patentin.txt

Gly Ala Thr Gly Gly Ala Gly Ala Cys Cys Ala Cys Gly Thr Cys  
 1790 1795 1800  
 Ala Thr Cys Cys Thr Gly Cys Ala Ala Ala Ala Gly Thr Ala Cys  
 1805 1810 1815  
 Gly Thr Gly Gly Cys Ala Thr Gly Cys Cys Thr Ala Gly Ala Ala  
 1820 1825 1830  
 Gly Ala Ala Cys Thr Thr Cys Gly Thr Gly Ala Ala Gly Cys Thr  
 1835 1840 1845  
 Cys Thr Gly Gly Ala Gly Ala Thr Cys Thr Cys Cys Cys Cys  
 1850 1855 1860  
 Thr Thr Cys Thr Thr Cys Ala Ala Gly Ala Cys Cys Cys Ala Cys  
 1865 1870 1875  
 Gly Ala Gly Gly Thr Gly Gly Thr Ala Gly Gly Cys Ala Gly Cys  
 1880 1885 1890  
 Thr Cys Cys Cys Thr Cys Cys Thr Cys Thr Thr Cys Gly Thr Gly  
 1895 1900 1905  
 Cys Ala Cys Gly Ala Cys Cys Ala Cys Ala Cys Cys Gly Gly Cys  
 1910 1915 1920  
 Cys Thr Gly Gly Cys Cys Ala Ala Gly Gly Thr Cys Thr Gly Gly  
 1925 1930 1935  
 Ala Thr Gly Ala Thr Ala Gly Ala Cys Thr Thr Cys Gly Gly Cys  
 1940 1945 1950  
 Ala Ala Gly Ala Cys Gly Gly Thr Gly Gly Cys Cys Thr Thr Gly  
 1955 1960 1965  
 Cys Cys Cys Gly Ala Cys Cys Ala Cys Cys Ala Gly Ala Cys Gly  
 1970 1975 1980  
 Cys Thr Cys Ala Gly Cys Cys Ala Cys Ala Gly Gly Cys Thr Gly  
 1985 1990 1995  
 Cys Cys Cys Thr Gly Gly Gly Cys Thr Gly Ala Gly Gly Gly Cys  
 2000 2005 2010  
 Ala Ala Cys Cys Gly Thr Gly Ala Gly Gly Ala Cys Gly Gly Cys  
 2015 2020 2025  
 Thr Ala Cys Cys Thr Cys Thr Gly Gly Gly Gly Cys Cys Thr Gly  
 2030 2035 2040

EX05-004patentin.txt

Gly Ala Cys Ala Ala Cys Ala Thr Gly Ala Thr Cys Thr Gly Cys  
 2045 2050 2055  
 cys Thr Cys Cys Thr Gly Cys Ala Gly Gly Gly Gly Cys Thr Gly  
 2060 2065 2070  
 Gly Cys Ala Cys Ala Gly Ala Gly Cys Thr Gly Ala Gly Cys Thr  
 2075 2080 2085  
 Gly Cys Thr Cys Ala Gly Cys Cys Ala Cys Cys Ala Thr Cys Ala  
 2090 2095 2100  
 Gly Gly Thr Thr Ala Ala Thr Thr Gly Gly Ala Thr Gly Gly Cys  
 2105 2110 2115  
 Gly Cys Cys Ala Gly Thr Cys Thr Gly Gly Cys Thr Gly Gly Ala  
 2120 2125 2130  
 Gly Gly Ala Gly Cys Cys Cys Thr Gly Ala Gly Ala Thr Gly Cys  
 2135 2140 2145  
 Cys Ala Thr Gly Gly Gly Ala Gly Gly Cys Cys Thr Gly Ala Gly  
 2150 2155 2160  
 Gly Thr Thr Gly Gly Cys Cys Ala Cys Gly Gly Gly Gly Gly Ala  
 2165 2170 2175  
 Gly Cys Thr Gly Gly Cys Cys Thr Cys Cys Ala Gly Gly Gly Ala  
 2180 2185 2190  
 Cys Gly Gly Gly Ala Gly Ala Gly Ala Thr Thr Gly Thr Gly Thr  
 2195 2200 2205  
 Cys Ala Thr Gly Thr Gly Cys Cys Ala Cys Ala Cys Gly Ala Gly  
 2210 2215 2220  
 Ala Cys Cys Ala Ala Cys Gly Thr Gly Gly Ala Ala Ala Ala Gly  
 2225 2230 2235  
 Thr Cys Thr Gly Ala Ala Gly Gly Gly Cys Cys Thr Thr Gly Gly  
 2240 2245 2250  
 Gly Ala Gly Ala Cys Cys Ala Gly Gly Thr Ala Gly Cys Ala Cys  
 2255 2260 2265  
 Cys Thr Gly Gly Cys Cys Cys Cys Ala Thr Cys Ala Thr Gly Ala  
 2270 2275 2280  
 Thr Gly Cys Ala Gly Gly Gly Gly Thr Thr Thr Thr Thr Gly Gly Gly  
 2285 2290 2295

## EX05-004patentin.txt

Gly Ala Cys Cys Thr Gly Gly Ala Ala Gly Gly Ala Ala Gly Gly  
 2300 2305 2310  
 Thr Gly Ala Thr Gly Ala Gly Gly Cys Ala Gly Thr Gly Ala Gly  
 2315 2320 2325  
 Thr Cys Ala Gly Ala Ala Ala Ala Ala Cys Cys Ala Gly Ala Ala  
 2330 2335 2340  
 Cys Gly Gly Gly Thr Cys Cys Cys Gly Gly Ala Thr Cys  
 2345 2350 2355  
 Thr Gly Cys Cys Gly Gly Gly Ala Ala Gly Gly Cys Thr Thr Cys  
 2360 2365 2370  
 Thr Gly Ala Gly Gly Gly Gly Cys Thr Gly Cys Cys Cys Thr Gly  
 2375 2380 2385  
 Ala Gly Ala Gly Cys Ala Thr Thr Cys Ala Gly Thr Thr Cys Ala  
 2390 2395 2400  
 Cys Ala Thr Gly Thr Cys Ala Cys Ala Gly Gly Gly Thr Ala Thr  
 2405 2410 2415  
 Gly Gly Thr Gly Thr Gly Ala Cys Ala Gly Gly Gly Thr Gly Cys  
 2420 2425 2430  
 Cys Thr Gly Thr Gly Gly Ala Cys Ala Cys Ala Thr Gly Ala Ala  
 2435 2440 2445  
 Thr Cys Ala Cys Thr Thr Cys Thr Ala Ala Cys Cys Thr Gly Cys  
 2450 2455 2460  
 Cys Thr Cys Cys Cys Thr Gly Thr Cys Ala Gly Cys Cys Thr Cys  
 2465 2470 2475  
 Cys Ala Gly Gly Cys Thr Gly Cys Cys Ala Gly Cys Thr Gly Gly  
 2480 2485 2490  
 Cys Thr Gly Ala Gly Gly Cys Cys Ala Gly Gly Gly Ala Cys Thr  
 2495 2500 2505  
 Gly Gly Gly Thr Cys Ala Gly Gly Cys Thr Cys Ala Thr Cys Thr  
 2510 2515 2520  
 Gly Thr Gly Gly Cys Gly Cys Cys Thr Cys Ala Gly Ala Gly Gly  
 2525 2530 2535  
 Gly Thr Cys Ala Gly Cys Ala Thr Cys Ala Thr Thr Gly Gly Thr  
 2540 2545 2550

## EX05-004patentin.txt

Gly Ala Ala Cys Ala Gly Ala Thr Gly Cys Ala Gly Gly Cys Gly  
 2555 2560 2565  
 Cys Thr Gly Cys Thr Gly Gly Ala Cys Cys Ala Thr Cys Thr Gly  
 2570 2575 2580  
 Gly Gly Gly Ala Gly Ala Gly Thr Gly Ala Cys Ala Gly Thr Cys  
 2585 2590 2595  
 Cys Ala Thr Gly Thr Cys Thr Thr Cys Ala Cys Cys Ala Gly Gly  
 2600 2605 2610  
 Gly Ala Gly Cys Cys Ala Thr Thr Thr Gly Ala Gly Thr Gly Cys  
 2615 2620 2625  
 Thr Gly Ala Gly Cys Gly Ala Cys Ala Ala Gly Ala Gly Gly Cys  
 2630 2635 2640  
 Thr Cys Ala Gly Ala Gly Gly Gly Cys Ala Thr Gly Ala Cys Cys  
 2645 2650 2655  
 Cys Cys Ala Thr Gly Gly Gly Ala Cys Thr Gly Gly Ala Thr Gly  
 2660 2665 2670  
 Cys Gly Gly Cys Cys Thr Gly Ala Gly Gly Gly Cys Thr Gly Ala  
 2675 2680 2685  
 Thr Ala Cys Cys Gly Cys Thr Gly Gly Gly Cys Gly Thr Ala  
 2690 2695 2700  
 Thr Cys Cys Thr Gly Cys Cys Cys Thr Gly Cys Thr Gly Thr Gly  
 2705 2710 2715  
 Gly Cys Cys Cys Thr Gly Thr Gly Gly Gly Ala Thr Cys Cys Thr  
 2720 2725 2730  
 Cys Cys Gly Thr Gly Thr Thr Cys Cys Thr Cys Gly Gly Cys Gly  
 2735 2740 2745  
 Gly Ala Cys Thr Cys Thr Gly Cys Thr Gly Ala Cys Cys Thr Cys  
 2750 2755 2760  
 Cys Thr Gly Cys Ala Gly Ala Cys Cys Cys Ala Ala Ala Cys Cys  
 2765 2770 2775  
 Ala Cys Ala Gly Cys Cys Ala Cys Ala Thr Cys Cys Cys Ala Gly  
 2780 2785 2790  
 Cys Thr Thr Cys Thr Gly Thr Gly Cys Cys Ala Gly Cys Ala Cys  
 2795 2800 2805

## EX05-004patentin.txt

Thr Gly Thr Gly Ala Cys Ala Gly Thr Ala Cys Cys Thr Cys Gly  
 2810 2815 2820  
 Cys Thr Cys Cys Thr Cys Thr Gly Thr Gly Cys Ala Cys Cys Ala  
 2825 2830 2835  
 Gly Ala Thr Cys Cys Gly Gly Cys Cys Thr Cys Ala Gly Gly Ala  
 2840 2845 2850  
 Cys Thr Thr Ala Cys Ala Cys Cys Thr Cys Cys Thr Gly Cys Cys  
 2855 2860 2865  
 Thr Gly Ala Cys Cys Cys Cys Cys Ala Gly Gly Cys Thr Thr Cys  
 2870 2875 2880  
 Thr Cys Thr Cys Thr Cys Cys Thr Thr Thr Cys Thr Cys Cys Cys  
 2885 2890 2895  
 Ala Gly Cys Ala Ala Ala Cys Thr Gly Cys Ala Gly Thr Gly Gly  
 2900 2905 2910  
 Cys Ala Gly Ala Ala Ala Gly Gly Ala Gly Gly Thr Thr Cys Ala  
 2915 2920 2925  
 Gly Ala Gly Gly Cys Thr Gly Gly Gly Ala Ala Ala Gly Thr Gly  
 2930 2935 2940  
 Gly Gly Cys Cys Thr Cys Cys Cys Cys Thr Thr Gly Cys Ala Ala  
 2945 2950 2955  
 Cys Thr Cys Ala Gly Ala Gly Cys Thr Gly Cys Thr Gly Cys Ala  
 2960 2965 2970  
 Cys Thr Cys Ala Gly Gly Ala Gly Gly Gly Cys Cys Cys Ala  
 2975 2980 2985  
 Thr Cys Cys Ala Ala Thr Cys Cys Cys Gly Gly Gly Cys Cys Cys  
 2990 2995 3000  
 Cys Thr Gly Cys Ala Gly Gly Gly Ala Ala Ala Ala Gly Cys Gly  
 3005 3010 3015  
 Cys Thr Gly Gly Gly Thr Gly Thr Gly Thr Gly Thr Cys Ala Gly  
 3020 3025 3030  
 Ala Gly Gly Cys Gly Cys Ala Gly Gly Gly Thr Gly Gly Thr  
 3035 3040 3045  
 Gly Gly Gly Gly Cys Thr Gly Cys Cys Ala Gly Cys Cys Ala Gly  
 3050 3055 3060

EX05-004patentin.txt

Gly Ala Cys Cys Cys Thr Gly Gly Cys Cys Thr Gly Cys Ala Gly  
 3065 3070 3075  
 Cys Cys Thr Gly Ala Thr Cys Cys Ala Ala Ala Cys Cys Ala Ala  
 3080 3085 3090  
 Ala Gly Ala Cys Thr Gly Thr Ala Gly Ala Ala Cys Cys Cys Thr  
 3095 3100 3105  
 Gly Gly Gly Gly Thr Gly Thr Gly Gly Cys Thr Ala Ala Cys Gly  
 3110 3115 3120  
 Gly Cys Cys Cys Cys Thr Cys Cys Ala Gly Cys Ala Cys Cys Cys  
 3125 3130 3135  
 Ala Thr Ala Gly Cys Cys Ala Gly Gly Thr Cys Thr Thr Cys Cys  
 3140 3145 3150  
 Thr Gly Gly Cys Cys Cys Thr Thr Gly Ala Gly Gly Cys Thr Gly  
 3155 3160 3165  
 Gly Gly Cys Thr Gly Gly Cys Gly Gly Ala Cys Ala Gly Gly Cys  
 3170 3175 3180  
 Ala Cys Cys Thr Ala Cys Cys Thr Cys Thr Thr Thr Cys Thr Thr  
 3185 3190 3195  
 Ala Ala Gly Cys Thr Gly Ala Ala Gly Cys Thr Cys Cys Ala  
 3200 3205 3210  
 Cys Ala Cys Thr Gly Thr Cys Thr Thr Cys Cys Ala Gly Gly Gly  
 3215 3220 3225  
 Cys Thr Gly Ala Gly Gly Ala Gly Ala Thr Gly Cys Thr Cys Thr  
 3230 3235 3240  
 Cys Cys Thr Thr Thr Thr Cys Thr Ala Cys Thr Gly Ala Cys Cys  
 3245 3250 3255  
 Ala Thr Cys Thr Thr Gly Ala Thr Ala Cys Thr Thr Ala Thr Thr  
 3260 3265 3270  
 Thr Ala Thr Ala Cys Gly Ala Gly Ala Gly Gly Cys Ala Gly Thr  
 3275 3280 3285  
 Thr Gly Cys Thr Gly Gly Ala Cys Gly Gly Gly Gly Thr Ala Gly  
 3290 3295 3300  
 Thr Ala Cys Thr Gly Gly Gly Ala Ala Gly Cys Ala Gly Gly Ala  
 3305 3310 3315

EX05-004patentin.txt

Gly Gly Cys Ala Gly Ala Ala Thr Gly Gly Cys Thr Cys Thr Gly  
 3320 3325 3330  
 Cys Thr Gly Ala Gly Cys Cys Thr Ala Cys Cys Cys  
 3335 3340 3345  
 Ala Thr Gly Ala Cys Ala Ala Cys Ala Cys Cys Cys Cys Ala Ala  
 3350 3355 3360  
 Thr Ala Ala Ala Cys Ala Gly Ala Ala Cys Ala Thr Thr Cys Ala  
 3365 3370 3375  
 Gly Ala Gly Cys Cys Ala Ala Ala Ala Ala Ala Ala Ala Ala  
 3380 3385 3390  
 Ala Ala Ala Ala Ala  
 3395

<210> 7  
 <211> 2052  
 <212> PRT  
 <213> Homo sapiens

<400> 7

Ala Thr Gly Ala Gly Gly Cys Gly Cys Thr Gly Cys Cys Cys Gly Thr  
 1 5 10 15  
 Gly Cys Cys Gly Thr Gly Gly Gly Ala Gly Cys Cys Thr Gly Ala Ala  
 20 25 30  
 Cys Gly Ala Gly Gly Cys Gly Gly Ala Gly Gly Cys Cys Gly Gly Gly  
 35 40 45  
 Gly Cys Gly Cys Thr Gly Cys Cys Cys Gly Cys Gly Gly Cys Gly Gly  
 50 55 60  
 Cys Cys Cys Gly Cys Ala Thr Gly Gly Gly Ala Cys Thr Gly Gly Ala  
 65 70 75 80  
 Gly Gly Cys Gly Cys Cys Gly Cys Gly Ala Gly Gly Ala Gly Gly Gly  
 85 90 95  
 Cys Gly Gly Cys Gly Gly Cys Gly Gly Cys Ala Gly Cys Cys Gly Gly  
 100 105 110  
 Gly Ala Cys Ala Gly Cys Ala Gly Cys Gly Ala Cys Cys Thr Gly Gly  
 115 120 125  
 Gly Cys Cys Cys Gly Gly Cys Gly Cys Ala Gly Gly Gly Gly Cys Cys  
 130 135 140

EX05-004patentin.txt

Cys Cys Gly Gly Cys Gly Gly Gly Gly Cys Gly Gly Cys Cys Gly Gly  
 145 150 155 160  
 Ala Gly Gly Gly Gly Gly Gly Cys Gly Gly Gly Cys Cys Cys Thr Gly  
 165 170 175  
 Gly Gly Cys Cys Cys Gly Gly Ala Cys Ala Gly Ala Gly Gly Gly Gly  
 180 185 190  
 Thr Cys Cys Ala Gly Cys Cys Thr Cys Cys Ala Cys Ala Gly Cys Gly  
 195 200 205  
 Ala Gly Cys Cys Thr Gly Ala Gly Ala Gly Gly Gly Cys Cys Gly Gly  
 210 215 220  
 Cys Cys Thr Cys Gly Gly Gly Cys Cys Thr Gly Cys Gly Cys Cys Gly  
 225 230 235 240  
 Gly Gly Gly Ala Cys Ala Gly Ala Gly Ala Gly Thr Cys Cys Gly Cys  
 245 250 255  
 Ala Gly Gly Cys Ala Gly Ala Ala Thr Thr Cys Thr Gly Gly Ala Cys  
 260 265 270  
 Ala Gly Ala Cys Gly Gly Ala Cys Ala Gly Ala Cys Thr Gly Ala Gly  
 275 280 285  
 Cys Cys Cys Gly Cys Gly Gly Cys Ala Gly Cys Thr Gly Gly Cys Cys  
 290 295 300  
 Thr Thr Gly Gly Ala Gly Thr Ala Gly Ala Gly Ala Cys Cys Gly Ala  
 305 310 315 320  
 Gly Ala Gly Gly Cys Cys Cys Ala Ala Gly Cys Ala Ala Ala Ala Gly  
 325 330 335  
 Ala Cys Gly Gly Ala Gly Cys Cys Ala Gly Ala Cys Ala Gly Gly Thr  
 340 345 350  
 Cys Cys Ala Gly Cys Cys Thr Cys Cys Gly Gly Ala Cys Gly Cys Ala  
 355 360 365  
 Thr Cys Thr Ala Gly Ala Ala Thr Gly Gly Ala Gly Cys Thr Gly Gly  
 370 375 380  
 Thr Cys Ala Gly Ala Gly Cys Thr Gly Gly Ala Gly Ala Cys Gly Ala  
 385 390 395 400  
 Cys Thr Thr Gly Thr Cys Thr Thr Thr Gly Gly Ala Cys Gly Gly Ala  
 405 410 415



EX05-004patentin.txt

Gly Ala Cys Cys Gly Gly Gly Ala Cys Ala Gly Ala Thr Gly Gly Cys  
 420 425 430  
 Cys Thr Thr Thr Gly Gly Ala Cys Thr Gly Ala Thr Cys Cys Gly Cys  
 435 440 445  
 Ala Cys Ala Gly Gly Thr Cys Cys Gly Ala Cys Cys Thr Cys Cys Ala  
 450 455 460  
 Gly Thr Thr Thr Cys Ala Gly Cys Cys Cys Gly Ala Gly Gly Ala Gly  
 465 470 475 480  
 Gly Cys Cys Ala Gly Cys Cys Cys Cys Thr Gly Gly Ala Cys Ala Cys  
 485 490 495  
 Ala Gly Cys Cys Ala Gly Gly Gly Gly Thr Thr Cys Ala Thr Gly Gly  
 500 505 510  
 Gly Cys Cys Cys Thr Gly Gly Ala Cys Ala Gly Ala Gly Cys Thr Gly  
 515 520 525  
 Gly Ala Ala Ala Cys Gly Cys Ala Thr Gly Gly Gly Thr Cys Ala Cys  
 530 535 540  
 Ala Gly Ala Cys Thr Cys Ala Gly Cys Cys Ala Gly Ala Gly Ala Gly  
 545 550 555 560  
 Gly Gly Thr Cys Ala Ala Gly Thr Cys Cys Thr Gly Gly Gly Cys Thr  
 565 570 575  
 Gly Ala Thr Ala Ala Cys Cys Thr Cys Thr Gly Gly Ala Cys Cys Cys  
 580 585 590  
 Ala Cys Cys Ala Gly Ala Ala Cys Ala Gly Thr Thr Cys Cys Ala Gly  
 595 600 605  
 Cys Cys Thr Cys Cys Ala Gly Ala Cys Thr Cys Ala Cys Cys Cys Ala  
 610 615 620  
 Gly Ala Ala Gly Gly Ala Gly Cys Cys Thr Gly Thr Cys Cys Cys Thr  
 625 630 635 640  
 Cys Ala Ala Ala Ala Gly Ala Gly Cys Cys Ala Ala Gly Thr Gly Cys  
 645 650 655  
 Thr Gly Ala Thr Gly Gly Cys Thr Cys Cys Thr Gly Gly Ala Ala Ala  
 660 665 670  
 Gly Ala Ala Thr Thr Gly Thr Ala Thr Ala Cys Thr Gly Ala Thr Gly  
 675 680 685

EX05-004patentin.txt

Gly Cys Thr Cys Cys Ala Gly Gly Ala Cys Ala Cys Ala Ala Cys Ala  
 690 695 700

Gly Gly Ala Thr Ala Thr Thr Gly Ala Ala Gly Gly Thr Cys Cys Cys  
 705 710 715 720

Thr Gly Gly Ala Cys Ala Gly Ala Gly Cys Cys Ala Thr Ala Thr Ala  
 725 730 735

Cys Thr Gly Ala Thr Gly Gly Cys Thr Cys Cys Cys Ala Gly Ala Ala  
 740 745 750

Ala Ala Ala Ala Cys Ala Gly Gly Ala Thr Ala Cys Thr Gly Ala Ala  
 755 760 765

Gly Cys Ala Gly Cys Cys Ala Gly Gly Ala Ala Ala Cys Ala Gly Cys  
 770 775 780

Cys Thr Gly Gly Cys Ala Cys Thr Gly Gly Thr Gly Gly Thr Thr Thr  
 785 790 795 800

Cys Cys Ala Ala Ala Thr Ala Cys Ala Ala Cys Ala Gly Gly Ala Thr  
 805 810 815

Ala Cys Thr Gly Ala Thr Gly Gly Cys Thr Cys Cys Thr Gly Gly Ala  
 820 825 830

Cys Ala Cys Ala Ala Cys Cys Thr Ala Gly Cys Ala Cys Thr Gly Ala  
 835 840 845

Cys Gly Gly Thr Thr Cys Cys Cys Ala Gly Ala Cys Ala Gly Cys Ala  
 850 855 860

Cys Cys Thr Gly Gly Gly Ala Cys Ala Gly Ala Cys Thr Gly Cys Cys  
 865 870 875 880

Thr Cys Thr Thr Gly Gly Gly Ala Gly Ala Gly Cys Cys Thr Gly Ala  
 885 890 895

Gly Gly Ala Thr Gly Gly Cys Cys Cys Ala Thr Thr Ala Gly Ala Gly  
 900 905 910

Gly Ala Ala Cys Cys Ala Gly Ala Gly Cys Cys Thr Gly Gly Ala Gly  
 915 920 925

Ala Ala Thr Thr Gly Cys Thr Gly Ala Cys Thr Cys Ala Cys Cys Thr  
 930 935 940

Gly Thr Ala Cys Thr Cys Thr Cys Ala Cys Cys Thr Gly Ala Ala Gly  
 945 950 955 960

EX05-004patentin.txt

Thr Gly Thr Ala Gly Cys Cys Cys Cys Cys Thr Gly Thr Gly Cys Cys  
 965 970 975

Cys Thr Gly Thr Gly Cys Cys Cys Cys Gly Cys Cys Thr Cys Ala Thr  
 980 985 990

Cys Ala Thr Thr Ala Cys Cys Cys Cys Thr Gly Ala Gly Ala Cys Cys  
 995 1000 1005

Cys Cys Thr Gly Ala Gly Cys Cys Thr Gly Ala Gly Gly Cys Cys  
 1010 1015 1020

Cys Ala Gly Cys Cys Ala Gly Thr Gly Gly Gly Ala Cys Cys Cys  
 1025 1030 1035

Cys Cys Cys Thr Cys Cys Cys Gly Gly Gly Thr Thr Gly Ala Gly  
 1040 1045 1050

Gly Gly Gly Gly Gly Cys Ala Gly Cys Gly Gly Cys Gly Gly Cys  
 1055 1060 1065

Thr Thr Cys Thr Cys Cys Thr Cys Thr Gly Cys Cys Thr Cys Thr  
 1070 1075 1080

Thr Cys Thr Thr Thr Cys Gly Ala Cys Gly Ala Gly Thr Cys Thr  
 1085 1090 1095

Gly Ala Gly Gly Ala Thr Gly Ala Cys Gly Thr Gly Gly Thr Gly  
 1100 1105 1110

Gly Cys Cys Gly Gly Gly Gly Gly Cys Gly Gly Ala Gly Gly Thr  
 1115 1120 1125

Gly Cys Cys Ala Gly Cys Gly Ala Thr Cys Cys Cys Gly Ala Gly  
 1130 1135 1140

Gly Ala Cys Ala Gly Gly Thr Cys Thr Gly Gly Gly Ala Gly Cys  
 1145 1150 1155

Ala Ala Ala Cys Cys Cys Thr Gly Gly Ala Ala Gly Ala Ala Gly  
 1160 1165 1170

Cys Thr Gly Ala Ala Gly Ala Cys Ala Gly Thr Thr Cys Thr Gly  
 1175 1180 1185

Ala Ala Gly Thr Ala Thr Thr Cys Ala Cys Cys Cys Thr Thr Thr  
 1190 1195 1200

Gly Thr Gly Gly Thr Cys Thr Cys Cys Thr Thr Cys Cys Gly Ala  
 1205 1210 1215

EX05-004patentin.txt

Ala	Ala	Ala	Cys	Ala	Cys	Thr	Ala	Cys	Cys	Cys	Thr	Thr	Gly	Gly
	1220					1225					1230			
Gly	Thr	Cys	Cys	Ala	Gly	Cys	Thr	Thr	Thr	Cys	Thr	Gly	Gly	Ala
	1235					1240					1245			
Cys	Ala	Thr	Gly	Cys	Thr	Gly	Gly	Gly	Ala	Ala	Cys	Thr	Thr	Cys
	1250					1255					1260			
Cys	Ala	Gly	Gly	Cys	Ala	Gly	Gly	Ala	Gly	Ala	Gly	Gly	Ala	Thr
	1265					1270					1275			
Gly	Gly	Thr	Cys	Gly	Gly	Ala	Thr	Thr	Cys	Thr	Gly	Ala	Ala	Ala
	1280					1285					1290			
Cys	Gly	Thr	Thr	Thr	Cys	Thr	Gly	Thr	Cys	Ala	Gly	Thr	Gly	Thr
	1295					1300					1305			
Gly	Ala	Gly	Cys	Ala	Gly	Cys	Gly	Cys	Ala	Gly	Cys	Cys	Thr	Gly
	1310					1315					1320			
Gly	Ala	Gly	Cys	Ala	Gly	Cys	Thr	Gly	Ala	Thr	Gly	Ala	Ala	Ala
	1325					1330					1335			
Gly	Ala	Cys	Cys	Cys	Gly	Cys	Thr	Gly	Cys	Gly	Ala	Cys	Cys	Thr
	1340					1345					1350			
Thr	Thr	Cys	Gly	Thr	Gly	Cys	Cys	Thr	Gly	Cys	Cys	Thr	Ala	Cys
	1355					1360					1365			
Thr	Ala	Thr	Gly	Gly	Cys	Ala	Thr	Gly	Gly	Thr	Gly	Cys	Thr	Gly
	1370					1375					1380			
Cys	Ala	Gly	Gly	Ala	Thr	Gly	Gly	Cys	Cys	Ala	Gly	Ala	Cys	Cys
	1385					1390					1395			
Thr	Thr	Cys	Ala	Ala	Cys	Cys	Ala	Gly	Ala	Thr	Gly	Gly	Ala	Ala
	1400					1405					1410			
Gly	Ala	Cys	Cys	Thr	Cys	Cys	Thr	Gly	Gly	Cys	Thr	Gly	Ala	Cys
	1415					1420					1425			
Thr	Thr	Thr	Gly	Ala	Gly	Gly	Gly	Cys	Cys	Cys	Cys	Thr	Cys	Cys
	1430					1435					1440			
Ala	Thr	Thr	Ala	Thr	Gly	Gly	Ala	Cys	Thr	Gly	Cys	Ala	Ala	Gly
	1445					1450					1455			
Ala	Thr	Gly	Gly	Gly	Cys	Ala	Gly	Cys	Ala	Gly	Gly	Ala	Cys	Cys
	1460					1465					1470			

EX05-004patentin.txt

Thr	Ala	Thr	Cys	Thr	Gly	Gly	Ala	Ala	Gly	Ala	Gly	Gly	Ala	Gly
	1475						1480				1485			
Cys	Thr	Ala	Gly	Thr	Gly	Ala	Ala	Gly	Gly	Cys	Ala	Cys	Gly	Gly
	1490					1495					1500			
Gly	Ala	Ala	Cys	Gly	Thr	Cys	Cys	Cys	Gly	Thr	Cys	Cys	Cys	
	1505					1510				1515				
Cys	Gly	Gly	Ala	Ala	Gly	Gly	Ala	Cys	Ala	Thr	Gly	Thr	Ala	Thr
	1520					1525					1530			
Gly	Ala	Gly	Ala	Ala	Gly	Ala	Thr	Gly	Gly	Thr	Gly	Gly	Cys	Thr
	1535					1540				1545				
Gly	Thr	Gly	Gly	Ala	Cys	Cys	Cys	Thr	Gly	Gly	Gly	Gly	Cys	Cys
	1550					1555				1560				
Cys	Cys	Thr	Ala	Cys	Cys	Cys	Cys	Thr	Gly	Ala	Gly	Gly	Ala	Gly
	1565					1570				1575				
Cys	Ala	Thr	Gly	Cys	Cys	Cys	Ala	Gly	Gly	Gly	Thr	Gly	Cys	Ala
	1580					1585					1590			
Gly	Thr	Cys	Ala	Cys	Cys	Ala	Ala	Gly	Cys	Cys	Cys	Cys	Gly	Cys
	1595					1600					1605			
Thr	Ala	Cys	Ala	Thr	Gly	Cys	Ala	Gly	Thr	Gly	Gly	Ala	Gly	Gly
	1610					1615				1620				
Gly	Ala	Ala	Ala	Cys	Cys	Ala	Thr	Gly	Ala	Gly	Cys	Thr	Cys	Cys
	1625					1630					1635			
Ala	Cys	Cys	Thr	Cys	Thr	Ala	Cys	Cys	Cys	Thr	Gly	Gly	Gly	Cys
	1640					1645					1650			
Thr	Thr	Cys	Cys	Gly	Gly	Ala	Thr	Cys	Gly	Ala	Gly	Gly	Gly	Cys
	1655					1660				1665				
Ala	Thr	Cys	Ala	Ala	Gly	Ala	Ala	Gly	Gly	Cys	Ala	Gly	Ala	Thr
	1670					1675				1680				
Gly	Gly	Gly	Ala	Cys	Cys	Thr	Gly	Thr	Ala	Ala	Cys	Ala	Cys	Cys
	1685					1690					1695			
Ala	Ala	Cys	Thr	Thr	Cys	Ala	Ala	Gly	Ala	Ala	Gly	Ala	Cys	Gly
	1700					1705					1710			
Cys	Ala	Gly	Gly	Cys	Ala	Cys	Thr	Gly	Gly	Ala	Gly	Cys	Ala	Gly
	1715					1720				1725				

EX05-004patentin.txt

Gly	Thr	Gly	Ala	Cys	Ala	Ala	Ala	Ala	Gly	Thr	Gly	Cys	Thr	Gly
	1730						1735					1740		
Gly	Ala	Gly	Gly	Ala	Cys	Thr	Thr	Cys	Gly	Thr	Gly	Gly	Ala	Thr
	1745					1750					1755			
Gly	Gly	Ala	Gly	Ala	Cys	Cys	Ala	Cys	Gly	Thr	Cys	Ala	Thr	Cys
	1760					1765					1770			
Cys	Thr	Gly	Cys	Ala	Ala	Ala	Ala	Gly	Thr	Ala	Cys	Gly	Thr	Gly
	1775					1780					1785			
Gly	Cys	Ala	Thr	Gly	Cys	Cys	Thr	Ala	Gly	Ala	Ala	Gly	Ala	Ala
	1790					1795					1800			
Cys	Thr	Thr	Cys	Gly	Thr	Gly	Ala	Ala	Gly	Cys	Thr	Cys	Thr	Gly
	1805					1810					1815			
Gly	Ala	Gly	Ala	Thr	Cys	Thr	Cys	Cys	Cys	Cys	Cys	Thr	Thr	Cys
	1820					1825					1830			
Thr	Thr	Cys	Ala	Ala	Gly	Ala	Cys	Cys	Cys	Ala	Cys	Gly	Ala	Gly
	1835					1840					1845			
Gly	Thr	Gly	Gly	Thr	Ala	Gly	Gly	Cys	Ala	Gly	Cys	Thr	Cys	Cys
	1850					1855					1860			
Cys	Thr	Cys	Cys	Thr	Cys	Thr	Thr	Cys	Gly	Thr	Gly	Cys	Ala	Cys
	1865					1870					1875			
Gly	Ala	Cys	Cys	Ala	Cys	Ala	Cys	Cys	Gly	Gly	Cys	Cys	Thr	Gly
	1880					1885					1890			
Gly	Cys	Cys	Ala	Ala	Gly	Gly	Thr	Cys	Thr	Gly	Gly	Ala	Thr	Gly
	1895					1900					1905			
Ala	Thr	Ala	Gly	Ala	Cys	Thr	Thr	Cys	Gly	Gly	Cys	Ala	Ala	Gly
	1910					1915					1920			
Ala	Cys	Gly	Gly	Thr	Gly	Gly	Cys	Cys	Thr	Thr	Gly	Cys	Cys	Cys
	1925					1930					1935			
Gly	Ala	Cys	Cys	Ala	Cys	Cys	Ala	Gly	Ala	Cys	Gly	Cys	Thr	Cys
	1940					1945					1950			
Ala	Gly	Cys	Cys	Ala	Cys	Ala	Gly	Gly	Cys	Thr	Gly	Cys	Cys	Cys
	1955					1960					1965			
Thr	Gly	Gly	Gly	Cys	Thr	Gly	Ala	Gly	Gly	Gly	Cys	Ala	Ala	Cys
	1970					1975					1980			

EX05-004patentin.txt  
 Cys Gly Thr Gly Ala Gly Gly Ala Cys Gly Gly Cys Thr Ala Cys  
 1985 1990 1995

Cys Thr Cys Thr Gly Gly Gly Gly Cys Cys Thr Gly Gly Ala Cys  
 2000 2005 2010

Ala Ala Cys Ala Thr Gly Ala Thr Cys Thr Gly Cys Cys Thr Cys  
 2015 2020 2025

Cys Thr Gly Cys Ala Gly Gly Gly Gly Cys Thr Gly Gly Cys Ala  
 2030 2035 2040

Cys Ala Gly Ala Gly Cys Thr Gly Ala  
 2045 2050

<210> 8  
 <211> 461  
 <212> PRT  
 <213> Homo sapiens

<400> 8

Met Thr Leu Pro Gly Gly Pro Thr Gly Met Ala Arg Pro Gly Gly Ala  
 1 5 10 15

Arg Pro Cys Ser Pro Gly Leu Glu Arg Ala Pro Arg Arg Ser Val Gly  
 20 25 30

Glu Leu Arg Leu Leu Phe Glu Ala Arg Cys Ala Ala Val Ala Ala Ala  
 35 40 45

Ala Ala Ala Gly Glu Pro Arg Ala Arg Gly Ala Lys Arg Arg Gly Gly  
 50 55 60

Gln Val Pro Asn Gly Leu Pro Arg Ala Pro Pro Ala Pro Val Ile Pro  
 65 70 75 80

Gln Leu Thr Val Thr Ala Glu Glu Pro Asp Val Pro Pro Thr Ser Pro  
 85 90 95

Gly Pro Pro Glu Arg Glu Arg Asp Cys Leu Pro Ala Ala Gly Ser Ser  
 100 105 110

His Leu Gln Gln Pro Arg Arg Leu Ser Thr Ser Ser Val Ser Ser Thr  
 115 120 125

Gly Ser Ser Ser Leu Leu Glu Asp Ser Glu Asp Asp Leu Leu Ser Asp  
 130 135 140

Ser Glu Ser Arg Ser Arg Gly Asn Val Gln Leu Glu Ala Gly Glu Asp  
 145 150 155 160

Val Gly Gln Lys Asn His Trp Gln Lys Ile Arg Thr Met Val Asn Leu  
 Page 31

EX05-004patentin.txt

165

170

175

Pro Val Ile Ser Pro Phe Lys Lys Arg Tyr Ala Trp Val Gln Leu Ala  
 180 185 190  
 Gly His Thr Gly Ser Phe Lys Ala Ala Gly Thr Ser Gly Leu Ile Leu  
 195 200 205  
 Lys Arg Cys Ser Glu Pro Glu Arg Tyr Cys Leu Ala Arg Leu Met Ala  
 210 215 220  
 Asp Ala Leu Arg Gly Cys Val Pro Ala Phe His Gly Val Val Glu Arg  
 225 230 235 240  
 Asp Gly Glu Ser Tyr Leu Gln Leu Gln Asp Leu Leu Asp Gly Phe Asp  
 245 250 255  
 Gly Pro Cys Val Leu Asp Cys Lys Met Gly Val Arg Thr Tyr Leu Glu  
 260 265 270  
 Glu Glu Leu Thr Lys Ala Arg Glu Arg Pro Lys Leu Arg Lys Asp Met  
 275 280 285  
 Tyr Lys Lys Met Leu Ala Val Asp Pro Glu Ala Pro Thr Glu Glu Glu  
 290 295 300  
 His Ala Gln Arg Ala Val Thr Lys Pro Arg Tyr Met Gln Trp Arg Glu  
 305 310 315 320  
 Gly Ile Ser Ser Ser Thr Thr Leu Gly Phe Arg Ile Glu Gly Ile Lys  
 325 330 335  
 Lys Ala Asp Gly Ser Cys Ser Thr Asp Phe Lys Thr Thr Arg Ser Arg  
 340 345 350  
 Glu Gln Val Leu Arg Val Phe Glu Glu Phe Val Gln Gly Asp Glu Glu  
 355 360 365  
 Val Leu Arg Arg Tyr Leu Asn Arg Leu Gln Gln Ile Arg Asp Thr Leu  
 370 375 380  
 Glu Val Ser Glu Phe Phe Arg Arg His Glu Val Ile Gly Ser Ser Leu  
 385 390 395 400  
 Leu Phe Val His Asp His Cys His Arg Ala Gly Val Trp Leu Ile Asp  
 405 410 415  
 Phe Gly Lys Thr Thr Pro Leu Pro Asp Gly Gln Ile Leu Asp His Arg  
 420 425 430  
 Arg Pro Trp Glu Glu Gly Asn Arg Glu Asp Gly Tyr Leu Leu Gly Leu



Page 33

EX05-004patentin.txt

Leu Cys Ser Ser Gln Val Lys Lys Gly Met Pro Pro Leu Pro Gly Arg  
 225 230 235 240  
 Ala Ala Pro Thr Gly Ser Glu Ala Gln Gly Pro Ser Ala Phe Val Arg  
 245 250 255  
 Met Glu Lys Gly Ile Pro Ala Ser Pro Arg Cys Gly Ser Pro Thr Ala  
 260 265 270  
 Met Glu Ile Asp Lys Arg Gly Ser Pro Thr Pro Gly Thr Arg Ser Cys  
 275 280 285  
 Leu Ala Pro Ser Leu Gly Leu Phe Gly Ala Ser Leu Thr Met Ala Thr  
 290 295 300  
 Glu Val Ala Ala Arg Val Thr Ser Thr Gly Pro His Arg Pro Gln Asp  
 305 310 315 320  
 Leu Ala Leu Thr Glu Pro Ser Gly Arg Ala Arg Glu Leu Glu Asp Leu  
 325 330 335  
 Gln Pro Pro Glu Ala Leu Val Glu Arg Gln Gly Gln Phe Leu Gly Ser  
 340 345 350  
 Glu Thr Ser Pro Ala Pro Glu Arg Gly Gly Pro Arg Asp Gly Glu Pro  
 355 360 365  
 Pro Gly Lys Met Gly Lys Gly Tyr Leu Pro Cys Gly Met Pro Gly Ser  
 370 375 380  
 Gly Glu Pro Glu Val Gly Lys Arg Pro Glu Glu Thr Thr Val Ser Val  
 385 390 395 400  
 Gln Ser Ala Glu Ser Ser Asp Ser Leu Ser Trp Ser Arg Leu Pro Arg  
 405 410 415  
 Ala Leu Ala Ser Val Gly Pro Glu Glu Ala Arg Ser Gly Ala Pro Val  
 420 425 430  
 Gly Gly Gly Arg Trp Gln Leu Ser Asp Arg Val Glu Gly Gly Ser Pro  
 435 440 445  
 Thr Leu Gly Leu Leu Gly Gly Ser Pro Ser Ala Gln Pro Gly Thr Gly  
 450 455 460  
 Asn Val Glu Ala Gly Ile Pro Ser Gly Arg Met Leu Glu Pro Leu Pro  
 465 470 475 480  
 Cys Trp Asp Ala Ala Lys Asp Leu Lys Glu Pro Gln Cys Pro Pro Gly  
 485 490 495

## EX05-004patentin.txt

Asp Arg Val Gly Val Gln Pro Gly Asn Ser Arg Val Trp Gln Gly Thr  
 500 505 510  
 Met Glu Lys Ala Gly Leu Ala Trp Thr Arg Gly Thr Gly Val Gln Ser  
 515 520 525  
 Glu Gly Thr Trp Glu Ser Gln Arg Gln Asp Ser Asp Ala Leu Pro Ser  
 530 535 540  
 Pro Glu Leu Leu Pro Gln Asp Gln Asp Lys Pro Phe Leu Arg Lys Ala  
 545 550 555 560  
 Cys Ser Pro Ser Asn Ile Pro Ala Val Ile Ile Thr Asp Met Gly Thr  
 565 570 575  
 Gln Glu Asp Gly Ala Leu Glu Glu Thr Gln Gly Ser Pro Arg Gly Asn  
 580 585 590  
 Leu Pro Leu Arg Lys Leu Ser Ser Ser Ala Ser Ser Thr Gly Phe  
 595 600 605  
 Ser Ser Ser Tyr Glu Asp Ser Glu Glu Asp Ile Ser Ser Asp Pro Glu  
 610 615 620  
 Arg Thr Leu Asp Pro Asn Ser Ala Phe Leu His Thr Leu Asp Gln Gln  
 625 630 635 640  
 Lys Pro Arg Val Ser Lys Ser Trp Arg Lys Ile Lys Asn Met Val His  
 645 650 655  
 Trp Ser Pro Phe Val Met Ser Phe Lys Lys Lys Tyr Pro Trp Ile Gln  
 660 665 670  
 Leu Ala Gly His Ala Gly Ser Phe Lys Ala Ala Ala Asn Gly Arg Ile  
 675 680 685  
 Leu Lys Lys His Cys Glu Ser Glu Gln Arg Cys Leu Asp Arg Leu Met  
 690 695 700  
 Val Asp Val Leu Arg Pro Phe Val Pro Ala Tyr His Gly Asp Val Val  
 705 710 715 720  
 Lys Asp Gly Glu Arg Tyr Asn Gln Met Asp Asp Leu Leu Ala Asp Phe  
 725 730 735  
 Asp Ser Pro Cys Val Met Asp Cys Lys Met Gly Ile Arg Thr Tyr Leu  
 740 745 750  
 Glu Glu Glu Leu Thr Lys Ala Arg Lys Lys Pro Ser Leu Arg Lys Asp  
 755 760 765

EX05-004patentin.txt

Met Tyr Gln Lys Met Ile Glu Val Asp Pro Glu Ala Pro Thr Glu Glu  
 770 775 780  
 Glu Lys Ala Gln Arg Ala Val Thr Lys Pro Arg Tyr Met Gln Trp Arg  
 785 790 795 800  
 Glu Thr Ile Ser Ser Thr Ala Thr Leu Gly Phe Arg Ile Glu Gly Ile  
 805 810 815  
 Lys Lys Glu Asp Gly Thr Val Asn Arg Asp Phe Lys Lys Thr Lys Thr  
 820 825 830  
 Arg Glu Gln Val Thr Glu Ala Phe Arg Glu Phe Thr Lys Gly Asn His  
 835 840 845  
 Asn Ile Leu Ile Ala Tyr Arg Asp Arg Leu Lys Ala Ile Arg Thr Thr  
 850 855 860  
 Leu Glu Val Ser Pro Phe Phe Lys Cys His Glu Val Ile Gly Ser Ser  
 865 870 875 880  
 Leu Leu Phe Ile His Asp Lys Lys Glu Gln Ala Lys Val Trp Met Ile  
 885 890 895  
 Asp Phe Gly Lys Thr Thr Pro Leu Pro Glu Gly Gln Thr Leu Gln His  
 900 905 910  
 Asp Val Pro Trp Gln Glu Gly Asn Arg Glu Asp Gly Tyr Leu Ser Gly  
 915 920 925  
 Leu Asn Asn Leu Val Asp Ile Leu Thr Glu Met Ser Gln Asp Ala Pro  
 930 935 940  
 Leu Ala  
 945

<210> 10  
 <211> 683  
 <212> PRT  
 <213> Homo sapiens  
 <400> 10

Met Arg Arg Cys Pro Cys Arg Gly Ser Leu Asn Glu Ala Glu Ala Gly  
 1 5 10 15  
 Ala Leu Pro Ala Ala Ala Arg Met Gly Leu Glu Ala Pro Arg Gly Gly  
 20 25 30  
 Arg Arg Arg Gln Pro Gly Gln Gln Arg Pro Gly Pro Gly Ala Gly Ala  
 35 40 45

EX05-004patentin.txt

Pro Ala Gly Arg Pro Glu Gly Gly Gly Pro Trp Ala Arg Thr Glu Gly  
 50 55 60  
 Ser Ser Leu His Ser Glu Pro Glu Arg Ala Gly Leu Gly Pro Ala Pro  
 65 70 75 80  
 Gly Thr Glu Ser Pro Gln Ala Glu Phe Trp Thr Asp Gly Gln Thr Glu  
 85 90 95  
 Pro Ala Ala Ala Gly Leu Gly Val Glu Thr Glu Arg Pro Lys Gln Lys  
 100 105 110  
 Thr Glu Pro Asp Arg Ser Ser Leu Arg Thr His Leu Glu Trp Ser Trp  
 115 120 125  
 Ser Glu Leu Glu Thr Thr Cys Leu Trp Thr Glu Thr Gly Thr Asp Gly  
 130 135 140  
 Leu Trp Thr Asp Pro His Arg Ser Asp Leu Gln Phe Gln Pro Glu Glu  
 145 150 155 160  
 Ala Ser Pro Trp Thr Gln Pro Gly Val His Gly Pro Trp Thr Glu Leu  
 165 170 175  
 Glu Thr His Gly Ser Gln Thr Gln Pro Glu Arg Val Lys Ser Trp Ala  
 180 185 190  
 Asp Asn Leu Trp Thr His Gln Asn Ser Ser Ser Leu Gln Thr His Pro  
 195 200 205  
 Glu Gly Ala Cys Pro Ser Lys Glu Pro Ser Ala Asp Gly Ser Trp Lys  
 210 215 220  
 Glu Leu Tyr Thr Asp Gly Ser Arg Thr Gln Gln Asp Ile Glu Gly Pro  
 225 230 235 240  
 Trp Thr Glu Pro Tyr Thr Asp Gly Ser Gln Lys Lys Gln Asp Thr Glu  
 245 250 255  
 Ala Ala Arg Lys Gln Pro Gly Thr Gly Gly Phe Gln Ile Gln Gln Asp  
 260 265 270  
 Thr Asp Gly Ser Trp Thr Gln Pro Ser Thr Asp Gly Ser Gln Thr Ala  
 275 280 285  
 Pro Gly Thr Asp Cys Leu Leu Gly Glu Pro Glu Asp Gly Pro Leu Glu  
 290 295 300  
 Glu Pro Glu Pro Gly Glu Leu Leu Thr His Leu Tyr Ser His Leu Lys  
 305 310 315 320

EX05-004patentin.txt

Cys Ser Pro Leu Cys<sub>325</sub> Pro Val Pro Arg Leu<sub>330</sub> Ile Ile Thr Pro Glu<sub>335</sub> Thr  
 Pro Glu Pro Glu<sub>340</sub> Ala Gln Pro Val Gly<sub>345</sub> Pro Pro Ser Arg Val<sub>350</sub> Glu Gly  
 Gly Ser Gly<sub>355</sub> Gly Phe Ser Ser Ala<sub>360</sub> Ser Ser Phe Asp Glu<sub>365</sub> Ser Glu Asp  
 Asp Val<sub>370</sub> Val Ala Gly Gly Gly<sub>375</sub> Gly Ala Ser Asp Pro<sub>380</sub> Glu Asp Arg Ser  
 Gly<sub>385</sub> Ser Lys Pro Trp Lys<sub>390</sub> Lys Leu Lys Thr Val<sub>395</sub> Leu Lys Tyr Ser Pro<sub>400</sub>  
 Phe Val Val Ser Phe<sub>405</sub> Arg Lys His Tyr Pro<sub>410</sub> Trp Val Gln Leu Ser<sub>415</sub> Gly  
 His Ala Gly Asn<sub>420</sub> Phe Gln Ala Gly Glu<sub>425</sub> Asp Gly Arg Ile Leu<sub>430</sub> Lys Arg  
 Phe Cys Gln<sub>435</sub> Cys Glu Gln Arg Ser<sub>440</sub> Leu Glu Gln Leu Met<sub>445</sub> Lys Asp Pro  
 Leu Arg<sub>450</sub> Pro Phe Val Pro Ala<sub>455</sub> Tyr Tyr Gly Met Val<sub>460</sub> Leu Gln Asp Gly  
 Gln Thr Phe Asn Gln Met<sub>470</sub> Glu Asp Leu Leu Ala<sub>475</sub> Asp Phe Glu Gly Pro<sub>480</sub>  
 Ser Ile Met Asp Cys<sub>485</sub> Lys Met Gly Ser Arg<sub>490</sub> Thr Tyr Leu Glu Glu<sub>495</sub> Glu  
 Leu Val Lys Ala<sub>500</sub> Arg Glu Arg Pro Arg<sub>505</sub> Pro Arg Lys Asp Met<sub>510</sub> Tyr Glu  
 Lys Met Val<sub>515</sub> Ala Val Asp Pro Gly<sub>520</sub> Ala Pro Thr Pro Glu<sub>525</sub> Glu His Ala  
 Gln Gly Ala Val Thr Lys Pro<sub>535</sub> Arg Tyr Met Gln Trp<sub>540</sub> Arg Glu Thr Met  
 Ser<sub>545</sub> Ser Thr Ser Thr Leu<sub>550</sub> Gly Phe Arg Ile Glu<sub>555</sub> Gly Ile Lys Lys Ala<sub>560</sub>  
 Asp Gly Thr Cys Asn<sub>565</sub> Thr Asn Phe Lys Lys<sub>570</sub> Thr Gln Ala Leu Glu<sub>575</sub> Gln  
 Val Thr Lys Val<sub>580</sub> Leu Glu Asp Phe Val<sub>585</sub> Asp Gly Asp His Val<sub>590</sub> Ile Leu

EX05-004patentin.txt

Gln Lys Tyr Val Ala Cys Leu Glu Glu Leu Arg Glu Ala Leu Glu Ile  
595 600 605

Ser Pro Phe Phe Lys Thr His Glu Val Val Gly Ser Ser Leu Leu Phe  
610 615 620

Val His Asp His Thr Gly Leu Ala Lys Val Trp Met Ile Asp Phe Gly  
625 630 635 640

Lys Thr Val Ala Leu Pro Asp His Gln Thr Leu Ser His Arg Leu Pro  
645 650 655

Trp Ala Glu Gly Asn Arg Glu Asp Gly Tyr Leu Trp Gly Leu Asp Asn  
660 665 670

Met Ile Cys Leu Leu Gln Gly Leu Ala Gln Ser  
675 680